

# NORTHERN INTEGRATED TRANSPORT PLAN

## BACKGROUND REPORT 2012

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Tasmania  
Explore the possibilities

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# Introduction

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The current Northern Integrated Transport Plan (NITP) was completed in 2003 and was the first of the three regional integrated transport plans to be developed. It was developed by the Department of Infrastructure, Energy and Resources (DIER), in collaboration Region North (now Northern Tasmania Development) and the eight member councils in the Northern Region: Break O'Day, Dorset, Flinders, George Town, Launceston, Meander Valley, Northern Midlands, and West Tamar.

The NITP provides a coordinated and strategic framework to recognise and address transport issues within the Northern Region over the next twenty years. Changes occurring to regional industry structures and the implementation of a range of new State Government and regional initiatives since the completion of the current NITP mean that a review is now timely.

Transport is fundamental to the Tasmanian community and economy. It provides Tasmanians with access to work, education, health services, family and friends. As an island state with an export-oriented economy, Tasmania depends on shipping and air services for interstate and overseas movement of goods and passengers. Much of Tasmania's economy is based on freight-intensive bulk commodities and agricultural products. High-value industries, such as seafood and seasonal produce, rely on timely market access. Many of the conditions affecting Tasmania as a whole are directly relevant to the Northern Region.

The new NITP will focus on looking to the future of the Northern Region and the opportunities which may exist. The Background Report is a review of the existing transport infrastructure and services, helping to ensure that an understanding of how the transport system works now will inform the decisions we make about the future.

## **Key regional strategies and initiatives, Northern Tasmania**

A significant amount of work has been undertaken in the Northern Region to better understand and plan the region's transport system since 2003. A brief list of some key initiatives affecting the region is listed below:

State	Tasmanian Economic Development Plan Tasmanian Infrastructure Strategy Tasmanian Transport Policy Tasmanian Freight Strategy Tasmanian Urban Passenger Transport Framework Tasmanian Walking and Cycling for Active Transport Strategy Tasmanian AusLink Corridor Strategy 2007 Tasmanian Road Safety Strategy 2006-2016 Infrastructure Australia Submissions Nation Building 2 Submissions 2012
Regional and corridor	Northern Tasmania Regional Transport Funding Priorities Regional Land Use Strategy of Northern Tasmania Greater Launceston Metropolitan Passenger Transport Plan Midland Highway Partnership Agreement North East Freight Roads Project Northern Tasmania Integrated Transport Plan 2003 Northern Economic Development Plan Industrial Land Use Study Principal Urban Cycling Network
Local	Examples include: Launceston Traffic Study Meander Valley Traffic Study Break O'Day Settlement Strategy Northern Midlands Development Plans Dorset Council Projects of Importance Launceston Cycling Infrastructure Strategy Flinders Structure Plan

**Figure 1. Key strategies and initiatives affecting the region, Northern Tasmania.**

The following provides a summary of the key strategies for the Northern Region.

### *Northern Tasmanian Integrated Transport Plan 2003*

The existing *Northern Tasmanian Integrated Transport Plan* (NTITP) was released in 2003. It provides a coordinated and strategic framework to identify and address the Region's transport issues over the long term. The Plan identifies eight goals and associated strategies, covering the broad topics of freight, tourism, accessibility, environment and sustainability.

While many of the goals, strategies and actions identified within the Plan remain current and will continue to be progressed, others have been achieved, require a change in focus or may no longer be relevant. Additional strategies, reflecting changes in the Region, and focusing on opportunities for the future, will also be required.

Regional integrated transport plans are a key component of state and local government's transport planning framework. In this context, review of the NTITP has been identified as a priority in the *Tasmanian Infrastructure Strategy* and by NTD.

The goals, strategies and actions of the NTITP are tabled on page 6:

**Figure2. Goals, strategies and actions from the Northern Tasmanian Integrated Transport Plan 2003**

Goal	Strategy	Action	Status
I. Safe, affordable, efficient and effective movement of people	I.1 Improve accessibility for non-motorised transport including appropriate facilities.	<ul style="list-style-type: none"> <li>Encourage safe and convenient conditions for pedestrians and cyclists</li> </ul>	<ul style="list-style-type: none"> <li><i>Tasmanian Walking and Cycling for Active Transport Strategy</i> developed 2010</li> <li>Principal urban cycling network identified for Launceston area.</li> <li><i>Launceston Cycling Infrastructure Strategy</i> and <i>Launceston Bike Plan</i> developed</li> <li>Trails and Bikeways Funding program has helped to deliver a number of projects</li> <li>Work continuing across a number of agencies and projects</li> </ul>
	I.2 Provide appropriate level of rural and regional bus services	<ul style="list-style-type: none"> <li>Initiate an independent review of 'core' public transport services to ensure that core regular passenger transport services are effective and efficiently delivered within available budgets</li> <li>Consult with relevant Government agencies to determine scope of change</li> <li>Establish minimum service levels in contracts for core services</li> <li>Identify other stakeholders and work towards achieving objectives</li> <li>Promote services to users and potential users</li> </ul>	<ul style="list-style-type: none"> <li>Core Passenger Services Review conducted 2005-2007 and <i>Passenger Transport Framework</i> developed</li> <li>Extensive consultation occurred</li> <li>Service levels fixed under new service contracts.</li> <li>121 recommendations made as part of the review, at 2010 81% had been implemented, 8% partially implemented, 11% deferred/not implemented.</li> <li>DIER continuing to work with stakeholders towards achieving objectives</li> </ul>
	I.3 Improve road safety in accordance with the Tasmanian Road Safety Strategy 2002-2006	<ul style="list-style-type: none"> <li>Ensure that infrastructure improvements incorporate recognised safety standards</li> <li>Identify safety 'black spots' and prioritise action</li> </ul>	<ul style="list-style-type: none"> <li>Tasmanian Road Safety Strategy updated 2007-2016, along with specific action plans.</li> <li>Key strategic directions are: <ul style="list-style-type: none"> <li>○ Safer Travel Speeds</li> <li>○ Best Practice Infrastructure</li> <li>○ Increased Safety for Young Road Users</li> <li>○ Enhanced Vehicle Safety</li> </ul> </li> <li>Actions for 2011-13 include: <ul style="list-style-type: none"> <li>○ Safer Rural Travel Speeds</li> <li>○ Investigate reduced speed limit on 60km/h roads</li> <li>○ Implement point-to-point speed enforcement (subject to feasibility)</li> </ul> </li> </ul>

**Figure2. Goals, strategies and actions from the Northern Tasmanian Integrated Transport Plan 2003**

Goal	Strategy	Action	Status
			<ul style="list-style-type: none"> <li>study)</li> <li>○ Pedestrian Safety – variable speed limits</li> <li>○ Educate the community about the impact of speeding</li> <li>○ Electronic school speed signs</li> <li>○ Best practice infrastructure projects (eg. 2+1 treatments)</li> <li>○ Safe system – mid and side barriers</li> <li>○ Review of the Graduated Licensing System</li> <li>○ Introduction of alcohol interlocks</li> <li>○ Work with local government to ensure safer speeds in shared urban spaces</li> <li>○ Continue use of Variable speed limits and weather and time based speed signs at appropriate locations</li> <li>○ Public education</li> <li>○ Enforcement</li> </ul>
	1.4 Improve safety by eliminating potential conflicts at rail crossing points	<ul style="list-style-type: none"> <li>• Improve train visibility</li> <li>• Undertake a risk analysis of level crossings</li> <li>• Reduce the number of at grade level crossings</li> </ul>	<ul style="list-style-type: none"> <li>• <i>National Railway Safety Level Crossing Strategy 2010-2020</i></li> </ul>
2. Freight movement that is safe, affordable, efficient and effective	2.1 Identify and improve strategic freight routes providing access to key destinations	<ul style="list-style-type: none"> <li>• Assess the present and likely freight movement for road and rail</li> <li>• Assess existing and likely future mode of movement</li> <li>• Assess current and likely future routing of road freight movement</li> <li>• Determine appropriate routes for B-double vehicles and investigate the options to improve, rationalise and extend routes through an agreed program of road and bridge improvements</li> <li>• Recognise the regional importance and effect of the following projects: <ul style="list-style-type: none"> <li>○ Upgrading the Lilydale/Golconda route – Launceston to Scottsdale</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <i>Tasmanian Freight Strategy</i> (under development) addresses these issues</li> <li>• Ongoing monitoring of freight routes</li> <li>• <i>Launceston Traffic Study</i> will look at traffic issues within Launceston – findings to be published 2012</li> <li>• HPV (B-double) and HML vehicles are permitted to operate on some parts of the network in the Northern Region</li> <li>• <i>Nation Building 2</i> submissions support a number of these projects</li> </ul>

**Figure2. Goals, strategies and actions from the Northern Tasmanian Integrated Transport Plan 2003**

Goal	Strategy	Action	Status
		<ul style="list-style-type: none"> <li>○ Improving East Tamar Highway to cater for efficient heavy freight movement, commuter and tourist traffic</li> <li>○ Upgrading Evandale Main Road – Midland Highway to Launceston Airport</li> <li>○ Upgrading Midland Highway – Perth to Breadalbane</li> <li>○ Upgrading Illawarra Main Road to National Highway Standard</li> <li>○ Upgrade Birralee Main Road and Frankford Main Roads</li> <li>● Monitor and review freight movements on Frankford and Birralee Main Roads</li> <li>● Evaluate options for freight vehicle movement between Scottsdale and Bell Bay</li> <li>● Improve freight movements through Launceston</li> </ul>	
	2.2 Promote the advantages and use of the Port at Bell Bay	<ul style="list-style-type: none"> <li>● Ensure that the port system, road and rail networks and freight services are integrated to improve efficiency</li> <li>● Upgrade the East Tamar Highway to a consistent Category I standard</li> <li>● Construct new storage and marshalling areas to improve the interaction between road and rail</li> <li>● Develop an alternative road access to the Port improving Old Bell Bay Road</li> </ul>	<ul style="list-style-type: none"> <li>● Upgrades to roads around Bell Bay Port to ensure improved access between road and rail</li> <li>● Bell Bay port part of the long term strategic plan for the Northern ports</li> </ul>
	2.3 Improve the standard of existing roads to cater for safe and efficient freight movements	<ul style="list-style-type: none"> <li>● Recognise the regional importance of the following road corridors: <ul style="list-style-type: none"> <li>○ West Tamar Highway</li> <li>○ Frankford Main Road</li> <li>○ Birralee Main Road</li> <li>○ Batman Highway</li> <li>○ Bridport Main Road</li> <li>○ Lilydale Main Road/Golconda Road</li> <li>○ Esk Main Road</li> </ul> </li> <li>● Investigate opportunities for further overtaking lanes on strategic freight routes across the</li> </ul>	<ul style="list-style-type: none"> <li>● <i>Tasmanian Freight Strategy (under development)</i> addresses these issues</li> <li>● Need to recognise corridors outside of the <i>Auslink Tasmanian Corridor Strategy 2007</i></li> <li>● Ongoing monitoring of freight routes</li> </ul>

**Figure2. Goals, strategies and actions from the Northern Tasmanian Integrated Transport Plan 2003**

Goal	Strategy	Action	Status
		Region <ul style="list-style-type: none"> <li>• Improve the use of safety barriers</li> <li>• Review the TRANSlink Development Plan, including links to Evandale Main Road</li> <li>• Identify tourism routes in the Region and agree upon intrinsic elements of a tourism network</li> </ul>	<ul style="list-style-type: none"> <li>• Use of mid and side safety barriers</li> <li>• Tourist routes adopted – still active, though may be some changes in the future</li> <li>• Need to clarify role of ‘tourist routes’ in the actual movement of tourists along the network</li> </ul>
	2.4 Undertake a freight demand survey and continue vehicle counts on key routes	<ul style="list-style-type: none"> <li>• Consult with freight demanders and operators</li> <li>• Update to ensure currency</li> <li>• Share information with stakeholders</li> <li>• Encourage use of information in planning studies</li> </ul>	<ul style="list-style-type: none"> <li>• Surveys conducted for 2005/06, 2008/09 with next survey to be conducted 2011/12.</li> <li>• Data from survey used to inform transport planning.</li> <li>• Summary data published on DIER website.</li> </ul>
	2.5 Encourage a partnership between road and rail	<ul style="list-style-type: none"> <li>• Review the potential of the rail network and capabilities</li> <li>• Investigate whether opportunities for road/rail partnerships are economically viable</li> <li>• Encourage retention of the existing rail network and, where possible, the extension of rail lines particularly to new and expanding industrial sites.</li> <li>• Encourage greater use of the rail network for the movement of freight</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Tasmanian Freight Strategy</i> (under development) addresses these issues</li> <li>• Ongoing monitoring of freight routes (road and rail)</li> </ul>
3. Tourist Friendly transport infrastructure and services	3.1 Improve the tourist experience	<ul style="list-style-type: none"> <li>• Adopt the core regional (State) tourism route and theme secondary routes that recognise Tourism Tasmania’s <i>Tourism 21: the Conversion Challenge</i></li> <li>• Promote heritage railway travel</li> <li>• Rationalise and upgrade services and facilities along identified tour routes, according to the priority in the established touring route framework</li> <li>• Implement consistent route and facility signage</li> </ul>	<ul style="list-style-type: none"> <li>• Tourist routes adopted – still active, though may be some changes in the future</li> <li>• Heritage rail promoted through Launceston Tramway Museum and Don River Railway. New statewide promotional website by Tasmanian Association of Tourist Railways. DEDTA produced <i>Rail Tourism: A Strategic Approach 2009</i> to analyse rail tourism</li> <li>• Funding not currently available to act on recommendations</li> <li>• Completed</li> </ul>

**Figure2. Goals, strategies and actions from the Northern Tasmanian Integrated Transport Plan 2003**

Goal	Strategy	Action	Status
		<ul style="list-style-type: none"> <li>based on Tasmanian Visitor Information System and identified Key Touring Routes, branding and marketing plans</li> <li>Incorporate consistent strategies and controls in planning schemes to protect the visual aesthetics and vistas of the corridor through which identified tourism routes are located</li> <li>Investigate whether a regional network of tourist orientated cycle routes is required and, if warranted, ensure that all improvements along affected roads incorporate safe and effective cycle facilities</li> <li>Promote a Statewide visitor awareness campaign of road conditions, travel times and route numbering.</li> </ul>	<ul style="list-style-type: none"> <li>New interim schemes coming online. Planning schemes will be monitored as they are updated.</li> <li>Greater Launceston Bicycle Commuting Network; Launceston Cycling Infrastructure Strategy; Great Western Tiers Cycling Strategy</li> <li>Not required. Cycle-friendly workshops held (eg. St Helens in 2010)</li> <li>Self-Guided Cycling Touring 2010 brochure, amongst other promotional materials</li> </ul>
	3.2 Reduce conflicts between road users	<ul style="list-style-type: none"> <li>Separate where possible incompatible road users such as heavy freight vehicles from tourism and non-motorised transport</li> </ul>	<ul style="list-style-type: none"> <li>Various projects, including through development of Rail Trail projects</li> </ul>
4. A sustainable transport system	4.1 Promote health and well-being by encouraging the use of alternative and non-motorised forms of transport	<ul style="list-style-type: none"> <li>Plan a regional core network of cycle and pedestrian facilities and integrate with existing and planned local facilities</li> <li>Implement, where appropriate, and practical <i>Australian Cycling – The National Strategy 1999-2004</i></li> <li>Publicise the long-term health and fitness benefits of exercise from cycling and walking in lieu of car travel</li> <li>Establish a regional cycling body to promote the planning and development of a regional cycling strategy</li> </ul>	<ul style="list-style-type: none"> <li>Greater Launceston Bicycle Commuting Network; Principal Urban Cycling Network Launceston; Launceston Cycling Infrastructure Strategy 2010; Northern Tasmania Regional Recreation Trails Strategy 2004; Mountain Bike Tourism Potential Northern Tasmania (2011 - NTD)</li> <li>Work continues in line with the National Cycling Strategy 2011-16</li> <li>Campaigns /strategies include: Walking and Cycling for Active Transport Strategy; Find Thirty; Walking Bus; Move Well, Eat Well</li> <li>T-BUG (Tamar) works with Sport and Recreation Tasmania and local government on regional cycling</li> </ul>
	4.2 Avoid duplication of road transport infrastructure	<ul style="list-style-type: none"> <li>Implement recommendations from road corridor and regional transport studies</li> <li>Develop road corridors in accordance with the targets established for road under the Tasmania Road Hierarchy</li> </ul>	<ul style="list-style-type: none"> <li>North East Freight Roads Project</li> </ul>

**Figure2. Goals, strategies and actions from the Northern Tasmanian Integrated Transport Plan 2003**

Goal	Strategy	Action	Status
	4.3 Improve transparency of funding decisions	<ul style="list-style-type: none"> <li>Make public the funding and priority lists for road upgrading on a regular basis outlining cost/benefit analysis information</li> </ul>	<ul style="list-style-type: none"> <li>Funding and priority lists made available on DIER website</li> </ul>
	4.4 Reduce the high capital costs of the short-term use of rural roads and bridges by forest industry heavy vehicles	<ul style="list-style-type: none"> <li>Work with the logging and timber industries to minimise the impact and maximise the use of long-term forward planning in forest harvest plans</li> <li>Establish co-operative planning processes between timber harvesters and local government for road and bridge maintenance and upgrades</li> <li>Need to further investigate long-term asset management of non-DIER State Govt-owned roads to minimise impacts on local communities</li> <li>Determine, where appropriate, industry contributions to the maintenance of affected rural roads and bridges</li> </ul>	<ul style="list-style-type: none"> <li>North East Freight Roads, Tasmanian Freight Strategy</li> <li>No formal mechanisms in place, but has occurred in an ad hoc manner</li> </ul>
5. Minimising adverse environmental impacts	5.1 Ensure environmentally sensitive construction, maintenance and standards for State, local roads, railways, ports and airports	<ul style="list-style-type: none"> <li>Identify current systems and practices in use across State agencies and local government</li> <li>Develop a consistent 'best practice' approach to tasks as required</li> </ul>	<ul style="list-style-type: none"> <li>Environmental consideration practiced - demonstrated by Brighton Transport Hub Project and Kingston Bypass - similar approach would be used on projects in the Northern Region</li> </ul>
	5.2 Minimise the impact of road freight vehicles on residential areas	<ul style="list-style-type: none"> <li>Ensure appropriate land use planning to maintain the safety and amenity of residential areas by avoiding the intrusion of heavy vehicles into those areas</li> <li>Develop a network of signed truck routes and promote their use</li> </ul>	<ul style="list-style-type: none"> <li>State Roads Hierarchy provides prioritisation of road network with uses</li> <li>North-East Freight Roads Project has seen to the upgrading of some main freight routes in the Northern Region</li> <li>Through Heavy Truck Safety Advisory Council and Performance Based Standards Scheme (PBS)</li> </ul>
6. Have an accessible transport system	6.1 Facilitate the provision of appropriate regional public transport services, including air and sea access to Flinders Island	<ul style="list-style-type: none"> <li>Determine an appropriate level for 'core' services and ensure they are effective in meeting essential transport needs</li> <li>Work with local communities to assess possible options</li> <li>Promote services to users and potential users</li> </ul>	<ul style="list-style-type: none"> <li>Core RPT air services have been maintained for Flinders Island</li> <li>Urban bus services are provided within metropolitan Launceston with service levels determined by Urban Service Standards</li> <li>Urban fringe and regional services delivered under contract. Service Development Plans require operators to engage with local</li> </ul>

**Figure2. Goals, strategies and actions from the Northern Tasmanian Integrated Transport Plan 2003**

Goal	Strategy	Action	Status
			communities in planning services. Opportunities have been provided for operators to test demand for additional services and new routes.
	6.2 Facilitate improved co-ordination of community, private sector, and public transport services in a sustainable way to meet regional transport needs	<ul style="list-style-type: none"> <li>Investigate possible options</li> </ul>	<ul style="list-style-type: none"> <li>Pilot 'Wheel Deal' in Dorset Municipality to assess effectiveness of regional transport brokerage services.</li> <li>Department has encouraged operators of commercial services to investigate opportunities to work with local community providers through Service Development Plans.</li> </ul>
	6.3 Optimise access to community services	<ul style="list-style-type: none"> <li>Access options to maximise accessibility as part of the transport planning process</li> <li>Investigate the possibility of allocating a proportion of transport funding for pedestrian and cyclist infrastructure</li> <li>Promote sustainable development outcomes by supporting the location of new development in places accessible to community facilities and transport systems</li> <li>Support developments which can be adequately served by pedestrian and cycle facilities (and public transport where feasible) to reduce the reliance on the private vehicle</li> </ul>	<ul style="list-style-type: none"> <li><i>Regional Land Use Strategy</i> focuses on ways to achieve this</li> </ul>
	6.4 Promote the Launceston Transit Centre, operated on commercial principles by the private operators, and encourage potential inter-linking services to use it	<ul style="list-style-type: none"> <li>Investigate options</li> </ul>	<ul style="list-style-type: none"> <li>Transit Centre in operation and used by urban fringe and regional service providers.</li> <li>Metro Tasmania does not use the Transit Centre.</li> </ul>
	6.5 Develop a Northern Region Action Plan involving industry, users and government for the co-ordinated introduction of <i>Disability Discrimination Act Accessible Transport Standards</i>	<ul style="list-style-type: none"> <li>Establish State Government and local government committee to coordinate process</li> <li>Identify areas that require attention</li> <li>Develop an implementation plan</li> <li>Encourage co-ordination and consistency across all local government areas</li> </ul>	<ul style="list-style-type: none"> <li>DIER has worked with individual regional Councils in addressing DDA compliance for bus stop infrastructure.</li> <li>Metro Tasmania undertaking its own program with regard to bus stops in urban areas, in conjunction with urban councils.</li> </ul>

**Figure2. Goals, strategies and actions from the Northern Tasmanian Integrated Transport Plan 2003**

Goal	Strategy	Action	Status
7. Integrated Land Use and Transport Planning	7.1 Develop consistency in planning schemes for land use planning and transport planning	<ul style="list-style-type: none"> <li>• Apply an integrated approach to land use planning and transport planning, recognising the strong links between the two and the need to plan them together</li> <li>• Land use planning should consider transport infrastructure, both existing and long-term</li> <li>• New uses or development of land near an existing or proposed transport route should be planned to avoid detriment to the transport route</li> <li>• Protect Category I, II and III arterial roads in rural areas from new accesses and ribbon development</li> <li>• Evolve a program of extending proclamations of limited access along Category I, II and III roads in the Region</li> <li>• Develop common assessment criteria to evaluate merits of developments proposed along rural high speed arterial roads</li> <li>• Consolidate future industrial development in areas which are, or can be, serviced both by the State Road network and rail</li> </ul>	<ul style="list-style-type: none"> <li>• Planning schemes reviewed June 2012 – focus on ensuring consistency with regional templates.</li> <li>• <i>Regional Land Use Strategy</i> also focuses on ways to achieve this</li> </ul>
	7.2 Promote integration between transport corridor planning and service providers	<ul style="list-style-type: none"> <li>• Consult with service providers</li> <li>• Assess the location of future and planned highway corridors and utility easements and encourage co-location</li> </ul>	<ul style="list-style-type: none"> <li>• Planning schemes reviewed June 2012</li> </ul>
8. Open and consultative planning processes and ensure all stakeholders have input	8.1 Use appropriate consultation processes for upgrading strategic transport corridors, bypasses and major infrastructure improvements	<ul style="list-style-type: none"> <li>• Identify stakeholders and clarify stakeholder role and expectations</li> <li>• Develop and implement a consultative plan for the development of projects</li> </ul>	<ul style="list-style-type: none"> <li>• DIER project management/planning mechanisms ensure appropriate consultation</li> </ul>

## Tasmanian Infrastructure Strategy

The *Tasmanian Infrastructure Strategy* was released in 2010. It coordinates Tasmania's efforts across the major economic sectors of transport, water, energy and digital through the high-level focus areas of:

- Coordinated infrastructure planning;
- Effective governance and decision making;
- Viable and sustainable infrastructure;
- Efficient infrastructure delivery; and
- Leveraging our National advantage.

The Strategy focuses on areas to further enhance infrastructure provision in the State, including a vision, objectives and actions for the planning and delivery of transport infrastructure in the State. The actions are presented over three time horizons to guide future priorities and decision-making.

The key actions from the *Tasmanian Infrastructure Strategy* relevant to the Northern Region transport system include:

Figure 3. Key actions in Northern Region, <i>Tasmanian Infrastructure Strategy</i> .		
0-3 Years	3-5 Years	5-10 Years
<ul style="list-style-type: none"><li>• Review the Northern Integrated Transport Plan</li><li>• Develop Intelligent Transport System (ITS) strategy</li><li>• Midland Highway safety upgrades</li><li>• New cycleway projects</li><li>• Community Road Projects</li><li>• Tasmanian Freight Strategy</li><li>• Assess priorities for upgrades to Bass Highway between Deloraine &amp; East Devonport</li><li>• West Tamar Highway Strategy</li><li>• Bell Bay port rail realignment</li><li>• Upgrade Key Northern Freight Routes</li><li>• Rail upgrades – North-South Line</li></ul>	<ul style="list-style-type: none"><li>• Continue Midland Highway upgrades</li><li>• Continue upgrading Key Northern Freight Routes</li><li>• Assess and upgrade Batman/East Frankford/Birralee Freight Corridor</li><li>• Commence upgrades to Bass Highway between Deloraine &amp; East Devonport</li><li>• Bell Bay Intermodal Expansion (subject to Federal funding)</li></ul>	<ul style="list-style-type: none"><li>• ITS applications to improve traffic flow and safety</li></ul>

## Tasmanian Transport Policy

The Department is developing an integrated transport policy for Tasmania, outlining the Government's vision, high level objectives, policy principles and priorities for Tasmania's transport system.

An integrated transport policy will provide a framework to guide transport decision makers and improve coordination, efficiency and consistency of planning and delivery across all transport modes, delivering improved outcomes for Tasmania's transport system.

It is anticipated the Policy will:

- Better align transport system objectives both within the transport portfolio and across other key Government Agencies under a single high-level ‘umbrella’ policy;
- Act as a ‘roadmap’ for current and emerging transport policy priorities so that it is clear how the various strategies, actions and programs contribute to the Government’s broader strategic transport objectives;
- Identify strategic transport policy gaps or inconsistencies at the system-wide level and outline priority actions to address these; and
- Set out an implementation plan for embedding the vision, objectives and principles in decision-making to improve the coordination and consistency of transport outcomes.

### *Tasmanian Freight Strategy*

DIER is developing a *Tasmanian Freight Strategy*, providing a framework to plan and manage the strategic freight system over the long term.

A key driver of economic growth in Tasmania is the ability to move freight efficiently, both within the state and to interstate and international markets. Toward addressing Tasmania’s future freight task, DIER is currently developing the Tasmanian Freight Strategy, which aims to achieve integrated, efficient and safe movement of freight and provide a clear direction on the future freight transport system, including ports, road and rail.

The Strategy will detail the current freight task and future growth at the state and regional levels. From analysis of the freight task, and the current freight system, the Strategy will set out a system-wide vision, with key objectives, actions and priorities, to address both current and emerging issues.

### *Tasmanian Urban Passenger Transport Framework*

The *Tasmanian Urban Passenger Transport Framework* provides the overarching policy context to meet our urban passenger transport challenges. The guiding objective is to develop 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 for people, initiate real behavioural change, reduce environmental impacts, and facilitate greater integration of transport and land use planning.

Key actions of the Framework include:

<b>Figure 4. Key actions, Tasmanian Urban Passenger Transport Framework.</b>		
Action Area	Vision	Identified Opportunities
Moving Minds	<ul style="list-style-type: none"> <li>• Increased public awareness, acceptance and usage of public transport, walking and cycling options.</li> <li>• Building partnerships between key stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>• Implement travel behaviour initiatives to target household travel choices, including TravelSmart and school and workplace travel plans</li> <li>• Support car pooling programmes</li> <li>• Establish an Urban Transport Advisory Group to guide implementation of the Framework</li> <li>• Improve the marketing of alternative transport modes</li> </ul>
Moving Places	<ul style="list-style-type: none"> <li>• Consolidation of population around</li> </ul>	<ul style="list-style-type: none"> <li>• Designated transit corridors for high frequency</li> </ul>

**Figure 4. Key actions, Tasmanian Urban Passenger Transport Framework.**

Action Area	Vision	Identified Opportunities
	<ul style="list-style-type: none"> <li>designated transit corridors, providing the critical population density to support future mass transit systems.</li> <li>Strengthening the role of regional urban centres to support more localised access to commercial centres and other key facilities.</li> </ul>	<ul style="list-style-type: none"> <li>bus services</li> <li>Integration of transport and land use planning</li> <li>Development of Metropolitan (Integrated Land Use and Transport) Plans</li> </ul>
Moving People	<ul style="list-style-type: none"> <li>High frequency public transport delivered with high quality infrastructure that enhances the attractiveness, efficiency and utility of public transport.</li> </ul>	<ul style="list-style-type: none"> <li>Improving frequency and span of services</li> <li>Development of off-bus infrastructure</li> <li>Pricing mechanisms</li> <li>Better provision of information</li> <li>Integration of modes</li> <li>Delivering transit priority on key corridors</li> <li>Marketing services</li> </ul>
Moving Policies	<ul style="list-style-type: none"> <li>Encouraging use of alternatives to private vehicles.</li> </ul>	<ul style="list-style-type: none"> <li>Reduce State Government car parking spaces</li> <li>Metropolitan car parking strategies to address: <ul style="list-style-type: none"> <li>Minimum parking requirements</li> <li>Shared parking provisions</li> <li>Uniformity of parking requirements</li> </ul> </li> </ul>
Moving Legs	<ul style="list-style-type: none"> <li>Encouraging walking and cycling through infrastructure, land use planning and behavioural change.</li> </ul>	<ul style="list-style-type: none"> <li>Implement the Walking and Cycling for Active Transport Strategy which will include: <ul style="list-style-type: none"> <li>Mapping the existing network</li> <li>Gathering data on usage and potential future demand</li> <li>Identifying new routes and linkages</li> <li>Safety, signage and supporting infrastructure</li> </ul> </li> </ul>
Moving Forward	<ul style="list-style-type: none"> <li>Adopting a long-term approach to integrated land use and transport planning.</li> </ul>	<ul style="list-style-type: none"> <li>Establishing a Strategic Integrated Land and Transport Committee in conjunction with the Tasmanian Planning Commission and 3 regional authorities</li> <li>Implementing the Key Initiatives of the Framework</li> <li>Monitoring and evaluating the implementation of measures</li> <li>Reviewing the Framework in five years time</li> </ul>

### Tasmanian Walking and Cycling for Active Transport Strategy

The *Tasmanian Walking and Cycling for Active Transport Strategy* is an initiative of the *Tasmanian Urban Passenger Transport Framework*, focusing on the promotion of walking and cycling as viable and desirable forms of transport. Priority areas of the Strategy are:

- Supportive land use systems that encourage walking and cycling;
- Improved infrastructure and facilities to support walking and cycling;
- Improved safety for pedestrians and cyclists;
- Improved policy and planning that ensures that walking and cycling needs are considered;
- Better coordination and collaboration with stakeholders;
- Better understanding walking and cycling needs and patterns; and
- Creating a walking and cycling culture.

Also linked to the *Tasmanian Walking and Cycling for Active Transport Strategy* is the *Greater Launceston Bicycle Network Plan*, a collaborative effort between Launceston City Council, West Tamar Council, Meander Valley Council, Northern Midlands Council and Sport and Recreation Tasmania. The project recognises that cyclist often cross municipal boundaries during a journey therefore requiring

a regional approach to bicycle network planning. DIER has also undertaken work with the Northern Region to identify the highest priority routes on this network.

### *North East Freight Roads Project*

The North East Freight Roads Project is a package of projects to improve safety, efficiency and level of service along key routes in the North East. The Australian and Tasmanian Governments have committed \$32m and \$8.5m respectively to the project, with upgrades underway and expected to be delivered over the next three years.

Project priorities are:

- Tebrakunna Bridge replacement (completed);
- Bridport Main Road between Scottsdale and Bridport;
- Tasman Highway/Gladstone Main Road between Branxholm and Tebrakunna Bridge;
- Camden Road and Camden Hills Road;
- Key bridges supporting the operable high productivity vehicle (HPV) network in the Mathinna region; and
- Prossers Road and Patersonia Road intersections.

Forestry is most significant freight task in the region. While recent market changes have seen forestry freight volumes reduce across the network statewide, and the current inter-governmental forestry agreement process will also likely see changes to the location of harvesting, the overall freight task in the North East is still expected to increase over the medium to longer term. This increase reflects the high proportion of plantation timber contained within the region.

### *Midland Highway Partnership Agreement*

The *Midland Highway Partnership Agreement* is a joint agreement between the Tasmanian Government and seven local government areas through which the Midland Highway passes. In the Northern Region, this includes the Northern Midlands Council and Launceston City Council. The Agreement outlines the agreed priority projects over the short, medium and longer term.

Priority projects relating to the Northern Region include:

**Figure 5. Priority projects for Northern Region, *Midland Highway Partnership Agreement*.**

Timeframe	Priority Projects
Immediate to 5 Years	<ul style="list-style-type: none"><li>• Symmons Plains – road realignment to improve horizontal and vertical curves, extension of overtaking lanes and upgrade access to raceway – \$30m</li><li>• Mona Vale Road – road realignment to improve horizontal curves consistent with adjacent sections of road– \$30m</li><li>• White Lagoon – widening and installation of separation barrier - \$6m-\$7m</li><li>• Drummond Street, Perth – junction upgrade to improve turning movement for freight and other vehicles -\$2m</li><li>• Campbell Town and Perth – safety and amenity improvements through shared vehicle/pedestrian zone – \$1m</li><li>• Other specific junction upgrades, including the Eskleigh junction at Perth (M1-M9) – \$14m-\$23m</li><li>• Pavement rehabilitation and resurfacing – various sites between Brighton and Perth – \$9m</li><li>• Shoulder sealing to provide minimum sealed shoulder width of 1.5 metres – \$50m</li><li>• Sight distance improvements, delineation and roadside hazard protection – \$15m</li><li>• Vehicle responsive and weather responsive electronic signs – \$1m</li></ul>

**Figure 5. Priority projects for Northern Region, Midland Highway Partnership Agreement.**

Timeframe	Priority Projects
5 to 10 Years	<ul style="list-style-type: none"> <li>• Perth to Breadalbane – new interchange with Evandale Main Road and divided four-lanes to Perth – \$70m</li> <li>• Ongoing program of pavement rehabilitation and resurfacing – \$10m</li> </ul>
10 to 25 Years	<ul style="list-style-type: none"> <li>• Esk Main Road junction at Conara – improvement to alignment and grade separated junction with Esk Main Road – \$50m</li> <li>• Perth – western bypass – connecting Midland Highway, Illawarra Main Road and Southern Outlet – \$120m-\$210m</li> <li>• Ongoing program of pavement rehabilitation and resurfacing</li> <li>• Ongoing program of widening, overtaking lanes and separation barriers –\$200m-\$300m</li> </ul>

### *Tasmanian AusLink Corridor Strategy 2007*

The National Network links the key population centres of Hobart, Launceston, Devonport and Burnie, major ports at Burnie, Bell Bay, Devonport and Hobart, and key industrial centres. The network covers Tasmania's major intrastate passenger and freight corridors, in terms of function and total passenger and freight volumes.

In the Northern region the National Network includes the East Tamar Highway between Launceston and Bell Bay, sections of the Midland and Bass Highways, the North-South Rail Line and Western Rail Line. Other key road links identified as significant in the AusLink Corridor Strategy, but which are not part of the network, include Illawarra Main Road and Evandale Main Road to the Western Junction.

The *Tasmanian AusLink Corridor Strategy 2007* represents a statement of the Tasmanian and Australian Government's shared strategic priorities for the long-term development of the National Network. The Strategy provides guidance to on specific network issues and priorities, and has been a key input to the successful securing of funding for major projects (Brighton Bypass, East Tamar Highway, increased rail funding).

**Figure 6. Short- and Long-term priorities, Tasmanian Auslink Corridor Strategy 2007.**

Short Term Priorities (to 2015)	Long Term Priorities (beyond 2015)
<ul style="list-style-type: none"> <li>• Improve road infrastructure and separate vehicles from hazards on high speed sections of the network.</li> <li>• Improve road infrastructure and alignment on the Bass Highway between Port Sorell Main Road and Deloraine</li> <li>• Improve rail infrastructure between Brighton and Western Junction to reduce north-south rail turnaround time and increase the pulling capacity of locomotives.</li> <li>• Develop options that align land transport freight networks and the long-term role and function of ports.</li> <li>• Develop options for improving the intermodal transport in greater Launceston.</li> <li>• Develop infrastructure improvement options for Bathurst and Wellington Streets and East Tamar Highway from Windermere to Mount Direction</li> </ul>	<ul style="list-style-type: none"> <li>• Improve road infrastructure on sections of the East Tamar Highway that have not been completed to enhance mass safety and efficiency</li> <li>• Improve road infrastructure on the Bass Highway between Deloraine and Illawarra Main Road</li> <li>• Improve road infrastructure and traffic management systems of Launceston's Bathurst and Wellington Streets.</li> <li>• Improve road infrastructure of the Midland Highway between Perth and Breadalbane.</li> <li>• Improve the Illawarra Main Road to enhance safety, efficiency and level of service</li> </ul>

### *Economic Development Plan*

The *Economic Development Plan* (EDP) was launched in August 2011 and presents an holistic framework for the Tasmanian Government to deploy across agencies in making the most of the State's assets in securing prosperity and jobs. The overarching vision of the EDP is to improve the prosperity of all Tasmanians through economic development which is socially and environmentally sustainable and is supported by four goals:

1. To support and grow businesses in Tasmania.
2. To maximise Tasmania's economic potential in key sectors.
3. To improve the social and environmental sustainability of the economy.
4. To support and grow communities within regions.

The EDP builds upon and integrates the Tasmanian Infrastructure Strategy, the Tasmanian Skills Strategy and the Tasmanian Innovation Strategy. The EDP will be supported by a system that:

- Sets a long-term (10 year plus) vision with four rolling implementation plans;
- Guides decision-making and resource allocation;
- Is dynamic and regularly updated;
- Provides an overarching framework for related strategies;
- Sets out a governance structure for stakeholder engagement; and
- Is measurable and simple to evaluate.

The Tasmanian Infrastructure Strategy and the regional integrated transport plans will be coordinated with regional economic development plans. The Northern Regional economic development plan was completed in November 2012 and provides profiles for priority industries in the region. It also includes a regional action plan detailing actions being progressed by local, Tasmanian and Australian governments within the region.

#### *Regional Land Use Strategy of Northern Tasmania*

Northern Tasmania Development (NTD) in partnership with the State Government has developed the *Regional Land Use Strategy of Northern Tasmania* to guide future development in Northern Tasmania, including interim planning schemes. The Regional Land Use Strategy (RLUS) was gazetted on 27 October 2011.

Key strategies relevant to the NITP include:

**Figure 7. Key strategies relevant to NITP, *Regional Land Use Strategy of Northern Tasmania*.**

Strategic Direction	Objectives
2. Adopt an integrated and coordinated approach to all of government infrastructure, transport and land use planning by achieving the following strategy objectives:	<ul style="list-style-type: none"><li>• Coordinate the provision of necessary transport, energy, communications and other infrastructure services with appropriate zoned and located land for development that can add value to the level and return of investment.</li><li>• Coordinate transport planning and lands use planning by:<ul style="list-style-type: none"><li>○ Safeguarding planned network improvements;</li><li>○ Identifying key transport networks and future networks; and</li><li>○ Understanding transport growth predictions.</li></ul></li></ul>

**Figure 7. Key strategies relevant to NITP, Regional Land Use Strategy of Northern Tasmania.**

Strategic Direction	Objectives
	<ul style="list-style-type: none"><li>• Encourage sustainable modes of transport by:<ul style="list-style-type: none"><li>○ Protecting the rail and road network from encroachment of sensitive uses;</li><li>○ Ensuring traffic impacts and car parking are adequately considered; and</li><li>○ Encouraging greater cycling, walking and public transport use.</li></ul></li></ul>

3. Develop a thorough understanding of key industry needs, including future demand and spatial (location) requirements by achieving the following strategy objectives:	<ul style="list-style-type: none"> <li>• To support industrial development including freight distribution and logistics by: <ul style="list-style-type: none"> <li>○ Identifying the growth and infrastructure needs of the key transport hubs of Bell Bay and the Launceston Airport precinct and intra-regional freight links to outside the region (south and north-west).</li> </ul> </li> </ul>
7. Enhance social inclusion by achieving the following strategy objectives:	<ul style="list-style-type: none"> <li>• Improve accessibility through improved walking and cycling provision, and to integrate public transport;</li> <li>• Consider accessibility of services in the location of new dwellings and affordability issues;</li> <li>• Provide for mixed land uses such as the integration of residential and service uses.</li> </ul>

Key regional policies and actions relevant to the NITP include:

**Figure 8. Key regional policies and actions relevant to NITP, Regional Land Use Strategy of Northern Tasmania.**

Policy	Action
RNS-P7 Ensure new development utilises existing infrastructure or can be provided with timely transport infrastructure, community services and employment.	RNS-A10 Prioritise amendments to planning schemes to support new urban growth areas and re-development sites with access to existing or planned transport infrastructure namely to support delivery of transit orientated development outcomes in activity centres and identified transit nodes (i.e. bus interchanges) on priority transit corridors.
RNS-P8 Apply transit orientated development principles and practices to the planning and development of transit nodes, having regard for local circumstances and character.	
RNS-P9 Plan new public transport routes, facilities and high frequency services to ensure safe and convenient passenger accessibility, and support the interrelationship between land use and transport	
RNS-P10 Undertake land use and transport planning concurrently and sequence development with timely infrastructure provisions.	RNS-A11 The Strategy will be further informed by the 2012 Northern Integrated Transport Plan. Future iterations of the strategy are to ensure planning schemes provide appropriate zoning patterns and supporting land use activities with regard to:
RNS-P11 Connect active transport routes to improve accessibility and encourage transport use by a broader range of people.	<ul style="list-style-type: none"> <li>• Identification of transport demands and infrastructure required;</li> <li>• Protection of key transport corridors from incompatible land uses; and</li> <li>• Creation of sustainable land use patterns that maximise efficient use of all future transportation modes i.e. road/rail, freight routes (including land and sea ports), and public transport, pedestrian and cyclists networks.</li> </ul>
RNS-P12 Manage car parking provision in regional activity centres and high-capacity transport nodes to support walking, cycling and public transport accessibility.	RNS-A12 Promote the region's Activity Centres network as multi-functional mixed use areas that provide a focus for integrating higher residential development outcomes, delivering of social and community facilities and services, and public transport provision.
RNS-P13 Ensure all new development within walking distance of transit node or regional activity centre maximises pedestrian amenity, connectivity and safety.	
RAC-P5 Ensure safe and amenable access for all members of the community to Activity Centres by supporting active transport opportunities to	RAC-A6 Ensure planning schemes have consistent policy, planning and design provisions to support and maximise public transport and pedestrian and cycle

**Figure 8. Key regional policies and actions relevant to NITP, Regional Land Use Strategy of Northern Tasmania.**

Policy	Action
encourage people to walk, cycle and use public transport to access Activity Centres.	access to the hierarchy of activity centres.  RAC-A7 Support the improved use of public transport and alternative modes of transport, pedestrian amenity and urban environment in a coordinated and consistent manner between the higher order activity centre.
RAC-P6 Improve the integration of public transport with Activity Centre planning, particularly where it relates to higher order activity centres.  RAC-P7 Coordinate with state agencies such as DIER to ensure the ongoing delivery of high quality, high frequency public transport that meets the needs and expectations of the community and supports the Regional Activity Centres network.	RAC-A8 Ensure planning schemes support integrated land use and transport planning principles to reinforce the role and function of the Regional Activity Centres network.  RAC-A9 Ensure transport strategies and future infrastructure provision support the role and function of the Regional Activity Centres network.
RIN-P1 Coordinate, prioritise and sequence the supply of infrastructure throughout the region to match its settlement framework.	RIN-A1 Liaise with state agencies principally DIER to develop transport initiatives.
RIN-P2 Identify infrastructure capacity, need and gaps in current provision to meet requirements for projected population and economic activity.	RIN-A2 Liaise with state agencies namely DEDTA and DIER to develop infrastructure strategies for Northern Tasmania.
RIN-P3 Direct new development towards settlement areas that have been identified as having spare infrastructure capacity.	RIN-A3 Preference growth in areas in that uses under capacity of existing infrastructure and give preference to urban expansion that is in physical proximity to existing transport corridors and the higher order Activity Centres.
RIN-P4 Recognise the DIER Road Hierarchy and protect the operation of major road and rail corridors (existing and planned) from development that will preclude or have an adverse effect upon the existing and future operations.  RIN-P5 Recognise and protect the region's port, and airport and other intermodal facilities (existing and planned) and protect their operation from development that will preclude or have an adverse impact upon the existing and future operations.	RIN-A4 Recognise and protect the operation and future expansion potential of key intermodal facilities, particularly the three major seaports and the Launceston Airport Protect from surrounding incompatible uses by applying appropriate zoning and buffers in planning schemes.  RIN-A5 Ensure that appropriate planning mechanisms are in place to facilitate the potential Bell Bay Port Intermodal Expansion that is subject to Federal Government Funding.  RIN-A6 Ensure commercial development near Launceston airports identifies and encourages activities that complement the role of the airport and do not affect the future operation of the airport by imposing operational constraints.  RIN-A7 Protect the region's road and rail infrastructure network to enable a transition between compatible land uses and an adequate separation between conflicting development (e.g. ribbon residential development and limit multiple new accesses onto regional freight roads) that would compromise safe and efficient operations of existing and future planned road and rail corridors.  RIN-A8 Protect strategic road corridors that are predominately State Roads (Category 1-3) under

**Figure 8. Key regional policies and actions relevant to NITP, Regional Land Use Strategy of Northern Tasmania.**

Policy	Action
	<p>Tasmanian Road Hierarchy which include:</p> <ul style="list-style-type: none"> <li>• Midland Highway</li> <li>• Illawarra Main Road</li> <li>• Bass Highway</li> <li>• Tasman Highway</li> <li>• Birralee Frankford Main Road/West Tamar/Batman Highway corridor</li> <li>• West Tamar Highway from Launceston to Frankford Main Road</li> <li>• East Tamar Highway</li> <li>• Bridport Main Road</li> <li>• Tasman Highway from Scottsdale to Ringarooma Main Road</li> <li>• Tasman Highway from Esk Main Road to St Helens</li> <li>• Ringarooma Main Road from Tasman Highway to Ringarooma</li> <li>• Lilydale Main Road from East Tamar Highway to Lalla Road (Golconda Road)</li> <li>• Bell Bay Main Road</li> <li>• Esk Main Road</li> <li>• Evandale Main Road from Midland Highway to Launceston airport</li> <li>• Kings Meadows Main Road.</li> </ul> <p>Other roads which are local roads may require protection include, Bathurst Wellington Streets, forestry freight routes – Mathinna Plains Road, northern section of Camden Road and Prossers Road.</p> <p>RIN-A9 Ensure appropriate zoning and/or other mechanisms within planning schemes support future roads that are currently being planned by DIER.</p>
RIN-P6 Facilitate and encourage active modes of transport through land use planning.	<p>RIN-A10 Ensure that subdivision roads are designed and constructed to meet the needs of all users and to reinforce the functions, safety and efficiency of the road or communal driveway, e.g. pedestrians and cyclists</p> <p>RIN-A11 Ensure that future subdivision design allows for permeability and connectivity in the transportation network.</p> <p>RIN-A12 Incorporate contemporary guidelines and other relevant subdivision design codes into Planning Schemes to ensure the provision of facilities for walking and cycling deals with this. Examples include:  a. layout of lots and buildings must provide for connection to adjacent local roads, open space, trails, pedestrian, cycle and bus routes; and  b. roads are designed and constructed to meet the needs of all users and to reinforce the functions, safety and efficiency of the road or communal driveway, e.g. pedestrians and cyclists.</p>

**Figure 8. Key regional policies and actions relevant to NITP, Regional Land Use Strategy of Northern Tasmania.**

Policy	Action
	<p>RIN-A13 Ensure the needs of off-road and on-road facilities cycle facilities (shared pathways and engineering aspects associated with the different needs of cyclists and walkers) are addressed.</p> <p>RIN-A14 Ensure future Specific or Local Area Development Plans can provide a means of linking the development of the Principal Urban Cycling Networks (bike highways) with the work that has to be done at local level to create appropriate local cycling 'connector routes' and end of trip facilities.</p> <p>RIN-A15 Ensure Local Area Development Plans enable and motivate walking for transport via provision of local walking routes as part of Local Area Development Plans.</p> <p>RIN-A16 Facilitate the increased use of active transport modes for short trips by ensuring future subdivisions provide for pedestrian connectivity to open spaces, trails, and cycle and bus routes and include adequate provision of cycle ways.</p> <p>RIN-A17 Ensure Planning Schemes require that developments/uses that attract high numbers of people include provision of end of trip facilities (showers, bike parking, etc.) and bike parking in parking requirements – where appropriate.</p>
RIN-P7 Facilitate an efficient and convenient public transportation system through land use planning.	<p>RIN-A18 Ensure that future higher density residential areas, mixed use developments and new commercial areas are integrated with public transport services.</p> <p>RIN-A19 Ensure new urban subdivisions are designed to cater for buses, e.g. road width, junction/roundabout design, entry and exit points and need to be designed in accordance with Australian Standards.</p> <p>RIN-A20 Ensure subdivision design provides interconnected road layouts which promote an efficient and contiguous public transport service together with cyclists and pedestrian movement and minimise the use of cul-de-sacs.</p> <p>RIN-A21 Consult and engage with public transport service providers in the concept design phase to determine if the area can be serviced by public transport in terms of the network and also in terms of subdivision design.</p> <p>RIN-A22 Ensure new urban development encourage residential densities that support more cost effective delivery of public transport services.</p> <p>RIN-A23 Ensure new urban development to be</p>

**Figure 8. Key regional policies and actions relevant to NITP, Regional Land Use Strategy of Northern Tasmania.**

Policy	Action
	<p>located adjacent to existing and preferably mixed use areas – reducing the need to travel and the distances travelled, at least for some trips.</p> <p>RIN-A24 Identify higher density residential areas, mixed use development and new commercial areas to support greater access and use of public transport services, particularly in areas which have higher frequency services.</p>

### Northern Tasmania Regional Transport Funding Priorities

The *Northern Tasmania Regional Transport Funding Priorities* report was prepared in 2011 by NTD. The Report identifies regional transport funding priorities as agreed by the eight northern councils. The report is split into two sections summarising the region's top four transport infrastructure priorities and individual projects identified as priorities for the councils. The report recommends that the individual projects form part of the review of the NITP.

The transport infrastructure priorities are (in order of priority):

1. Review of the Northern Tasmanian Integrated Transport Plan
2. Maintenance of State and National Road Network
3. Bell Bay Expansion Project
4. Lady Barron/Bridport Redevelopment

The individual projects identified for the Northern Region are:

- Deviation Upgrades for Lilydale – Golconda Main Road
- Lilydale – Golconda Main Road (new road alignment between Lietinna – Blumont Section)
- Road Access to East Coast Region – investigate available options for alternate or upgraded transport routes to the East Coast.
- Evandale Main Road Upgrade (dual carriageway from Launceston Airport to Breadalbane roundabout)
- Powranna Road – Heavy Vehicle Route
- Review of Ownership of Northern Regional Road Network including bridges
- North East Freight Project Stage 2 – including Mathinna Plans Road and Break O'Day bridges
- Birralee/Frankford/West Tamar/Batman Highway Freight Corridor
- Bass Highway (improvement of road infrastructure and alignment between Deloraine and Latrobe)
- Midland Highway Planning Funds (Midland Highway Partnership Agreement)
- Greater Launceston Bicycle Network Plan
- Planning for improved intra-regional passenger transport – Greater Launceston Metropolitan Passenger Transport Plan

### Tasmanian Road Safety Strategy 2007-2016

The *Tasmanian Road Safety Strategy* was developed jointly by the Tasmanian Government and Tasmanian Road Safety Council, and provides strategic guidance to improve road safety outcomes across Tasmania. The Strategy aims to support the *Tasmanian Together* targets of reducing serious injuries and fatalities on Tasmania's roads.

The Strategy presents four key strategic directions which include:

- Safer travel speeds;
- Best practice infrastructure;
- Increased safety for young road users; and
- Enhanced vehicle safety.

### *Infrastructure Australia submissions*

#### **Bell Bay Intermodal Expansion**

In 2008, Tasmania provided a submission to Infrastructure Australia as part of IA's identification of nationally significant infrastructure. Expansion of the Port of Bell Bay to cater for future freight growth was subsequently identified by IA as a priority project under its Reform and Investment Framework. The project remains one of Real Potential under the Framework, referring to projects that require additional economic analysis and further development before proceeding through the infrastructure pipeline. The project reflects Tasmania's heavy reliance on shipping transport, with over 99% of Tasmania's total import and export freight task by volume moved by sea. The northern ports at Bell Bay, Burnie and Devonport carry the majority of this task.

Recently a number of issues have impacted on freight movements to and from Tasmania. These include:

- The loss of all container services into the Port of Bell Bay;
- Flat growth in the Tasmanian container market;
- Increased freight costs for customers resulting from the need to tranship containers through Melbourne; and
- Loss of export woodchip volume due to the forest industry restructure.

Despite these short-term setbacks, expansion of the Port remains a medium to long term project to meet Tasmania's projected export freight demand over the next twenty years. Updated information on freight movements to and from Tasmanian was provided to Infrastructure Australia as part of the Tasmanian Government's 2012 submission.

The Australian Government has provided \$1.5 million for the establishment of a Freight Logistics Coordination Team. The Team will provide expert advice and guide the completion of a long-term freight strategy in Tasmania, providing recommendations to the Minister for Infrastructure on Tasmanian supply chain issues as part of this process.

### **Australian Government Assistance Package for Tasmanian Exporters**

On 22 March 2012 the Federal Minister for Infrastructure and Transport, the Hon Anthony Albanese MP, announced that the Australian Government would provide a one-off \$20 million funding package to assist Tasmanian exporters to access their international markets.

DIER is responsible for the management and administration of the assistance package, on behalf of the Tasmanian Government.

The funding is being used to provide immediate and direct financial assistance to exporters, invest in critical infrastructure improvements and assist with longer-term strategic planning and freight logistics coordination.

\$14.5 million has been allocated to a one-off grant program – the *Tasmanian Shipping Transition Assistance Fund* - to help reduce the financial impact of increasing shipping costs for Tasmanian exporters, particularly those businesses that were directly impacted by the cessation in April 2011 of the AAA direct international container service from the Bell Bay Port.

The core objective of the Fund is to help individual companies with the costs of transition measures already undertaken and/or the implementation of strategies that will help them maintain their competitiveness in accessing international markets on an ongoing basis.

Grant payments to successful eligible applicants were progressed in October 2012.

### **Frankford/Birralee/Batman Freight Corridor**

Improvements to the Frankford/Birralee/Batman freight corridor were identified as a priority project by the Tasmanian Government in the first round of funding submissions to IA. Upgrade of the road will support long term freight growth, and is also linked to future expansion of the Bell Bay port. While not recognised as being of national significance through that process, the project remains a medium to long term priority under the *Tasmanian Infrastructure Strategy*.

The corridor provides a major inter-regional freight route linking Bell Bay port to the North West and North East. The corridor is 53km of State Roads including the Birralee Main Road, the eastern section of Frankford Main Road, northern section of the West Tamar Highway and the Batman Highway. The corridor requires major infrastructure improvements to bring it to higher productivity vehicle (HPV) standard and support heavy vehicle access from the North West to Bell Bay.

## *Nation Building 2 submissions*

The Tasmanian Government also provided submissions as part of the Nation Building 2 Program. Nation Building 2 is the Australian Government's major transport funding program, focused on projects that deliver significant productivity, efficiency and connectivity improvements. The current Nation Building Program ends in 2013-14, with all States required to negotiate a new agreement with the Australian Government as part of a Nation Building 2 (2014-15 to 2018-19) bid.

Infrastructure Australia will assess all projects or packages of projects over \$100 million.

Whilst the Nation Building 2 submissions focused on projects across all three regions in Tasmania, a number of submissions will target areas specifically in the Northern Region, including *Birralee Main Road Upgrades, Burnie to Hobart Freight Corridor and Greater Launceston Transport Planning Key Initiatives*.

### ***Birralee Main Road Upgrades***

The Frankford-Birralee-Batman Freight Corridor is a key linkage in Tasmania's freight network. It is particularly important for freight movement between the north-east (including Bell Bay port) and north-west (including the Burnie and Devonport ports).

Recent changes in shipping arrangements at Bell Bay have increased freight movements on the corridor, with greater volumes of Higher Productivity Vehicles (HPVs).

The corridor includes four major roads (Batman Highway, West Tamar Highway, Frankford Main Road, and Birralee Main Road) and is the most direct route between Tasmania's north-east and north-west. The corridor alleviates the need for HPVs to travel via the longer route through Launceston and avoids movement through urban and residential areas.

Recent analysis of Tasmania's broader HPV network found that the Batman Highway, Frankford Main Road and Birralee Main Road do not meet the Tasmanian road geometry guidelines for HPVs. Further analysis of the Frankford-Birralee-Batman Freight Corridor found that asset condition along the Batman Highway and Frankford Main Road were fit for current purpose, but the Birralee Main Road will require significant asset rehabilitation in the short-term.

The Tasmanian Government has identified upgrading the Birralee Main Road as the key priority for the Frankford-Birralee-Batman Freight Corridor. The objective of the Birralee Road Upgrades is to deliver an efficient, safe and technically compliant road corridor to meet current and future HPV needs on a key inter-regional freight corridor.

## **Burnie to Hobart Freight Corridor**

The *Burnie to Hobart Freight Corridor* submissions include three projects within the Northern Region:

- ***Midland Highway - Duplication, Perth to Breadalbane***

Perth to Breadalbane is a key section of the Midland Highway, Tasmania's major north-south transport corridor and a key link in Tasmania's National Network. The Highway is both a critical freight connection facilitating access from the Southern region to the State's northern ports, and the major transport link for passengers travelling between the northern and southern regions.

The Midland Highway between Perth and Breadalbane carried around 1.4 million tonnes of freight in 2009. It is a key link into Launceston and to industrial development adjacent to Launceston Airport. It fulfils an important role as a passenger transport link, including for commuters between Perth and Launceston. The proposed project will see duplication of the Highway from Youl Main Road junction north of Perth to the existing roundabout at Breadalbane.

- ***Illawarra Main Road Upgrades and South Perth Bypass***

Illawarra Main Road is the key connection between the Bass and Midland Highways, providing a shorter, more attractive route for freight and passenger vehicles travelling between the north-west and south. While not part of the National Network, Illawarra Main Road was identified as a key link in the overall network as part of the *Tasmanian AusLink Corridor Strategy 2007* and operates as a key link in Tasmania's north-south supply chain.

In 2012, the Road carried around 1.9 million tonnes of freight at an estimated value of \$2.2 billion. It is forecast to almost double its freight tonnages by 2030 to 3.5 million tonnes. Almost one million tonnes of freight carried on the road is destined for Hobart, highlighting the importance of the road in the north-south freight supply chain.

The priority is a South Perth Bypass, which will provide improved travel times for vehicles; significantly reduce the volume of heavy vehicles travelling through Perth and provide grade-separation at the rail crossing. The Bypass will accommodate current and future heavy vehicle productivity improvements. A series of projects has also been identified on the western section from Pateena Road to the Bass Highway to address safety and efficiency.

- ***Bass Highway Forward Planning – Latrobe to Deloraine***

The Highway is part of the National Network, and has seen significant investment over the past two decades. The majority of the Highway is at National Network standard, however the section between Latrobe and Deloraine (east of Devonport) requires major upgrade and is the key remaining section requiring investment. This section is a single carriageway rural highway, compared to adjacent dual carriageway sections, and is deficient in terms of alignment, lane and shoulder widths for both existing and future heavy vehicle configurations. Other issues include a low level of service; high crash risk and density; and multiple direct property accesses.

Upgrade of the Bass Highway between Port Sorell Main Road and Deloraine was identified as a priority in the *Tasmanian AusLink Corridor Strategy 2007* due to a number of deficiencies: low level of service, high crash risk and density, multiple direct accesses, and narrow lanes and shoulder widths. The Tasmanian Government is seeking planning funding under National Building 2 to analyse efficiency and safety issues on the Highway; investigate and develop corridor options, including preliminary designs for key sections; review applicable regulatory requirements (planning,

environmental, heritage); and undertake initial stakeholder engagement. The outcome would be a long-term, prioritised plan for upgrade of the corridor that supports improved freight efficiency and safety.

### ***Greater Launceston Transport Planning Key Initiatives***

In partnership with local government and other key stakeholders, the Tasmanian Government is undertaking three major transport initiatives within the Greater Launceston metropolitan area and the Northern Region more broadly:

1. Review of the Northern Integrated Transport Plan;
2. Development of a Greater Launceston Metropolitan Passenger Transport Plan;
3. Launceston Traffic Modelling

The aim of these initiatives is to better understand Greater Launceston's metropolitan freight and passenger transport system, including underlying demand drivers and relationship to land use; identify key challenges; and develop effective, evidence-based solutions.

The initiatives build on and inform each other. The Northern Integrated Transport Plan provides the overarching regional context to inform planning and investment in the regional and metropolitan transport network. The Greater Launceston Metropolitan Passenger Transport Plan addresses a key policy gap, identifying strategies and key initiatives to improve passenger transport outcomes over the long-term within the Launceston urban area, with a particular focus on public transport and alternative modes. The Launceston Traffic Modelling project examines the issues affecting performance at the corridor and intersection level.

#### ***– Greater Launceston Metropolitan Passenger Transport Plan***

The Greater Launceston Metropolitan Passenger Transport Plan assesses the Greater Launceston metropolitan area from a passenger transport and land use perspective. It considers the effectiveness of alternative travel demand measures, and will provide an integrated package of strategies and actions consistent with the overall objectives of the Plan.

The Plan will be conducted to achieve the following project specific outcomes:

- Shared understanding of existing land use and transport patterns;
- Confirmation of existing transport challenges and opportunities in Greater Launceston;
- Identification and agreement on likely areas of demographic change, and changes in travel patterns, to 2030;
- Identification and prioritisation of projects capable of contributing to the achievement of the Framework objectives; and
- Agreement between major stakeholders to the Passenger Transport Plan and prioritised projects.

The Plan will be a significant input into the Northern Integrated Transport Plan. Metropolitan passenger transport is a key gap within the existing Northern Regional Integrated Transport Plan, which contains little information or analysis on metropolitan movements or non-infrastructure

solutions. The Greater Launceston Metropolitan Passenger Transport Plan will be critical in providing this information as part of review of the regional plan.

Outcomes from the Plan can also be incorporated into other regional, metropolitan and local planning frameworks, such as the proposed Greater Launceston Plan.

– ***Launceston Traffic Study***

The Launceston Traffic Study aims to review freight and passenger networks in the Launceston metropolitan area, and identify opportunities to improve the efficiency and safety of this network. The project involves the assessment of strategic routes through Launceston, focusing on key issues affecting network performance, and identifying opportunities to improve the capacity, efficiency and safety of existing infrastructure. A review of longer-term alternative routes for through traffic will also be considered.

Traffic modelling of the Launceston road network is required to assess the impacts of potential bypass options that have been previously identified, as well as to assess the impacts of safety improvements at key junctions, such as imposing turn restrictions to reduce vehicle conflicts. Stakeholder Engagement and Consultation will continue to be a critical task.

*Individual council projects*

In addition to these projects, individual councils have progressed a range of important transport and land use planning projects which will inform the future of the region. These include plans and strategies relating to pedestrians, cycling, housing, industrial areas, and environmental issues.

# Moving People

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## Key strategic issues

- High dependence on private motor cars
- Planning reform – further integration of land use and transport planning
- Dispersed and low density populations
- Ageing population and decreasing household sizes
- Expanded urban areas and urban consolidation
- Induced demand from expanded infrastructure networks
- Limited demographic, primarily students travelling to educational facilities using public transport where available
- Infrastructure for non-motorised transport
- Encouraging the uptake of more sustainable and non-motorised forms of transport – behavioural change
- Increasing cost of fuels and viability of alternative fuels

## Background

Road is the dominant mode for passenger transport in the Northern Region, with an extensive public network of approximately 7,500km<sup>1</sup> connecting rural and urban areas and linking to other regions. The majority (64%) of the public road network is owned by local government and many of the daily journeys that people make to work, school, shopping, visiting friends and family and accessing recreational activities use local government roads. The State owned portion connects major population centres, airports, seaports and industrial centres. The topography of the area is important in defining many of the region's transport links and alignments – e.g. In metropolitan Launceston, the Tamar River and the Cataract Gorge shape the city and the transport network. Further afield, the mountainous terrain and windy roads around areas like St Mary's and Scottsdale affect the transport network and driving conditions for passenger vehicles.

## Key inter-regional links

The key inter-regional links are the most important road links allowing passengers to move between the large population centres in the three regions to access goods and services. These links include Illawarra Main Road and the Bass, Midland and East Tamar Highways (Fig. 1).

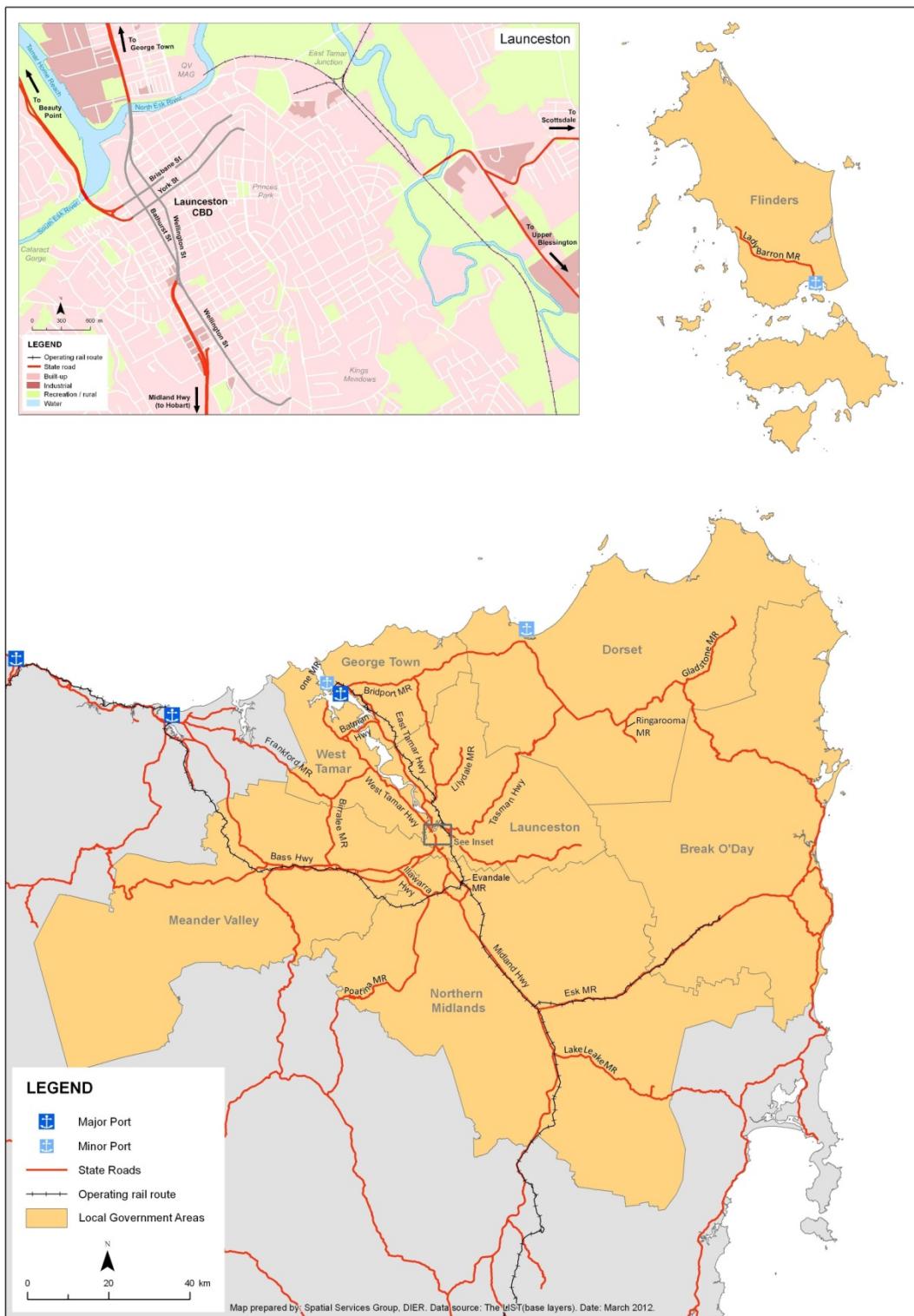
The Bass Highway links the Northern Region to the North West, in particular to Devonport and Burnie which are the North West region's most populous towns. The Midland Highway links the North and South regions, and the two major population centres of Hobart and Launceston. These two highways in combination with Illawarra Main Road also serve as the major inter-regional link for passengers travelling between the South and North West regions.

A number of council owned roads provide linkages through metropolitan areas on these key inter-regional routes and their performance is an important factor in determining how the route operates as a whole. For example, the Bathurst-Wellington couplet in Launceston is critical to

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<sup>1</sup> Road length based on the LIST road network, and divided roads are treated as separate lengths.

north-south through movements and to travel within Launceston CBD.



### Key regional links

Regional roads serve an important role in allowing people to move from regional and rural areas to major regional cities or key inter-regional links. Strategic regional roads include:

- Batman Highway – links each side of the Tamar River north of Launceston, connecting the East Tamar Highway to the West Tamar Highway

- Tasman Highway – links the East Coast towns of St Marys, St Helens and Bicheno
- West Tamar Highway – links from the North including Beauty Point, Beaconsfield and Exeter through Legana and Riverside and into Launceston
- Frankford and Birralee Main Roads – link the western side of the region including Westbury and Hagley to the West Tamar Highway and Launceston
- Bridport Main Road – links through to the North east coast including Bridport and Pipers Brook
- Esk Main Road – links St Marys to the Midland Highway
- Poatina Main Road – links the Lakes area and Central Plateau towards Launceston
- Evandale Main Road – links Evandale and Launceston airport through to the Midland Highway and into Launceston from the South
- Lilydale and Golconda Roads – links from Scottsdale through Lilydale, in towards Mowbray and Launceston
- Lady Barron Main Road – links Lady Barron Port and airport in the south to Whitemark and the north of Flinders Island
- Gladstone Main Road – links Gladstone and many forest areas to Derby, Branxholm and then Scottsdale
- Ringarooma Main Road – links Scottsdale to Derby and Branxholm
- Lake Leake Main Road – links Bicheno, Swansea and the east coast to Campbelltown and the Midland Highway

#### *Key metropolitan links and urban transport corridors*

Strategic urban roads are critical links in the region's passenger network (Table 1). Key metropolitan links and urban transport corridors include:

- Bathurst / Wellington Streets couplet: the key links through central Launceston, linking the southern and northern suburbs of Launceston and vital role connecting regional or inter-regional links north and south of the city.
- Charles / Goderich Streets: north of Launceston serving a similar role to Bathurst and Wellington Streets connecting the East Tamar Highway to central Launceston and used as a major urban route from Invermay, Mowbray, Newnham, Mayfield and Rocherlea
- West Tamar Road/Brisbane Street: key passenger route from suburbs on the western shore of the Tamar River including Trevallyn, Riverside and satellite suburbs further north including Legana, Rosevairs and Grindelwald
- Westbury Road: Major route from western suburbs Prospect, Summerhill, Prospect Vale and satellite suburb of Blackstone Heights
- Elphin Road / Penquite Road / Hobblers Bridge Road: form a key passenger route from Launceston eastern suburbs including Elphin, East Launceston, Norwood and Waverley and connects to Tasman Highway and North East
- Cimitiere Street and Invermay Road: provide important connections to industrial and commercial land in inner eastern suburbs

- Kings Meadows Link / Quarantine Road / Johnston Road / St Leonards Road: Linking Blessington Road and industrial areas along St Leonards Road to Midland Highway and intersecting other key metropolitan links including Hobart Road and Penquite Road.
- Hobart Road: southern suburbs (Kings Meadows, Youngtown) into Wellington St

**Figure 10. Traffic volumes on State roads in/around Greater Launceston.**

Road	AADT	Survey Date	CV%	Compound Growth %	Comments
Midland Highway/ Southern Outlet S of Glen Dhu Connector	25,890	2011	8.5	2.0 (2005-2011)	High utilisation left lane south (59%), High utilisation left lane north (61%)
Bass Highway- W of Midland Highway	18,639	2010	8.8	1.5 (2005-2010)	High utilisation left lane east (82%), high utilisation left lane west (79%).
East Tamar Highway- Charles Street Bridge	30,818	2010	14.7	0.4% (2003-2010)	
East Tamar Highway- N of Forster Street	25,612	2010	7.1	-0.4 (2004-2010)	High utilisation left lane south (63%),
West Tamar Highway- 358m N of Margaret St	24,648	2011	5.1	1.5 (2005-2011)	High utilisation left lane north (59%), high utilisation right lane south (56%).
Tasman Highway - W of Killafaddy	9,175	2011	4.6	2.0 (2005-2011)	
Blessington Main Road, S of Tasman Highway	5,941	2009			

**Figure 10. Traffic volumes on State roads in/around Greater Launceston.**

Road	AADT	Survey Date	CV%	Compound Growth %	Comments
Westbury Road – Mt Leslie Rd to Mace St	14,614	2010			
Country Club Avenue – E of Cheltenham Way	7,452	2009			
*Note: AADT is Average Annual Daily Traffic					

<b>Figure 11. AADT volumes for main roads within Launceston.</b>		
<b>Road</b>	<b>AADT</b>	<b>Survey Date</b>
Launceston Couplet	45,396	2011
Charles Street Bridge	29,400	2009
Charles Street	10,039	2011
Victoria Street Bridge	19,320	2009
Cimitiere Street	11,527	2009
Elphin Road	16,808	2011
Hobart Road	16,656	2011
Westbury Road	11,612	2011
Frederick Street	8,126	2011
Kings Bridge	8,807	2011
Hoblers Bridge Road	8,788	2011
Invermay Road	17,014	2011
Vermont Road	7,018	2011
Ravenswood Road	5,135	2011
Boland Street	14,296	2009
High Street	13,376	2011

### *Launceston Traffic Study*

DIER and Launceston City Council have been working together to review passenger and freight traffic in Launceston and investigate any issues. Some of the issues considered include:

- Congestion on Wellington/Bathurst Streets during peak times
- Freight and through traffic using the CBD network
- Capacity issues at Hoblers Bridge and Elphin Road – proposed residential and commercial development may compound existing issues

Data used to inform the recommendations from the study included:

- Traffic volume data
- Crash data
- Travel time data
- Congestion data
- Freight demand

The study also considered the likely impact of proposed developments within Launceston and the surrounding area including:

- Bell bay pulp mill
- Hardware store and commercial development, Lindsay Street
- Department store, Hobart Road
- Subdivision activity, Waverley

One of the key findings of the study was that there had been a considerable increase in travel times on east/west routes through Launceston. This appeared to be linked to congestion at intersections on this route. High traffic volumes and growth was identified in several areas.

Key issues included:

- Charles Street Bridge – capacity constraints around Lindsay Street/Goderich Street
- Hobart Road – High traffic volumes and increased commercial development
- Victoria Bridge – high traffic volumes and links to city and key industrial sites

Crash analysis was conducted and determined that the majority of crashes occurred on the busiest routes.

DIER and Launceston City Council will continue to work together to further investigate issues and develop options.

## **Metropolitan transport**

The *Tasmanian Urban Passenger Framework* was released in 2010 to provide direction for urban passenger transport in the State. The vision statement is:

*“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.”*

The Framework provides the overarching policy response to deliver better modal choice to people in urban areas and identifies Metropolitan Transport Plans as key initiatives to ensure that investment in the transport system is matched by supportive land use planning decisions.

DIER is currently working with stakeholders on the *Greater Launceston Metropolitan Passenger Transport Plan*. This will provide a framework to guide future passenger transport development and investment in Greater Launceston. To progress the outcomes of the *Tasmanian Urban Passenger Transport Framework* the Passenger Transport Plan has the following objectives:

- To encourage and promote stakeholder and community awareness of non-car-based travel options and solutions;
- To identify and promote opportunities for non-infrastructure solutions to manage travel demand issues; and

- To achieve agreement between major stakeholders for an action plan that pursues non-car-based solutions to travel demand issues.

To achieve these objectives, the Plan will work towards the following specific outcomes:

- Map passenger transport demand drivers;
- Map land use patterns, including residential and future growth areas, key activity and employment centres;
- Identify key passenger transport corridors and attributes and assess potential travel demand management measures such as park and ride and high frequency transit corridors; and
- Identify and assess local transport linkages and opportunities.

Metropolitan and regional information on public transport and cycling is provided below. Further detail on the metropolitan context – including local issues and potential options – will be available through the Passenger Transport Plan background documents. The actions identified through this work will inform the urban component of the Northern Integrated Transport Plan.

## Public transport

### *Metropolitan*

Metro Tasmania operates bus services within and around Launceston with a variety of other operators servicing the rest of the region.

Public transport in Tasmania is supported through significant subsidies by the Tasmanian Government. Fares only account for around 30% of Metro's revenue. Subsidisation allows for additional services in non-peak periods and low cost concession fares. In 2009-10 the Tasmanian Government invested around \$70 million in public transport across the state, including \$29.5 million on Metro services. It is estimated that on a weekday during the school term, students make up around two-thirds of bus passengers in the Launceston metropolitan area.

Providing public transport to low density housing developments on the urban fringe can be extremely costly and inefficient. Despite this, the growth of areas like Legana indicates that many people want to live in areas outside the major urban area. Future consolidation of development around existing areas may make these services more viable. Park and ride facilities at key locations, combined with specialised bus services may potentially be attractive for people living in outer communities, however issues around access would remain for those with limited access to cars.

One of the actions identified in the framework was the development of passenger transport plans for Hobart, Launceston and the North-West Coast.

To increase patronage and improve the convenience of bus travel, Metro intends a statewide review of its bus timetables to ensure they respond to market demand, are more accurate and readily understood. They are also improving the information available at bus stops and via the web, including the use of Twitter alerts to allow people to get real time information about issues affecting services, and introducing a journey planner on the website to make it easier for people to plan their trip.

In addition to upgrading the bus fleet with modern, more eco-friendly and accessible buses, Metro is undertaking a program to progressively upgrade bus shelters and seating - especially at stops where research indicates a greater need. Currently 35% of the fleet is wheelchair accessible with low floors and kneeling capability, which allow the buses to be lowered closer to the pavement level. Metro has a fleet replacement program that will increase the number of wheelchair accessible buses operating in Tasmania.

While the above attributes may improve patronage, the most influential impact across a range of factors, is increases in the frequency of services with a good spread of operating hours across both weekday and weekend services.

Metro operates a high frequency corridor between Launceston CBD and Mowbray, with services operating on a 10 minute frequency during weekdays until 6:00pm. Since the introduction of the service in 2007 there have been significant improvements in patronage along this corridor.

Similarly, there is a lot of evidence to suggest that a network of core high frequency services operating along defined transport corridors is the most effective way to improve patronage on bus services. Such an approach is being considered as part of the Launceston Transport Plan.

Additionally, Metro operates the Tiger Bus service which is a 15 minute weekday peak period shuttle from Inveresk to Launceston CBD and an interpeak 30 minute city loop. This service is funded by the Launceston City Council. Around 50% of Metro's services in Launceston are operated with an accessible bus.

### *Launceston Metropolitan Services*

Launceston itself is served by a comprehensive bus system providing regular bus services within the metropolitan area of Launceston: the extent of these services align with the urban boundary – an approach consistent for all services across Tasmania. Services operate seven days a week including evening services until approximately 10pm Monday to Saturday. Nearly all metropolitan areas are serviced by Metro, including outer metropolitan areas such as Hadspen St Leonards and Blackstone Heights. Services to Legana are provided by Manions Coaches. Launceston has many areas with people who are transport disadvantaged who have critical needs for bus services throughout the week. Most core areas are provided with services after 6pm on an hourly basis. Some areas which are unserviced at night have nearby services within 500 metres walk. All areas have Saturday services, including outer metropolitan areas. Sunday services are limited to key suburbs. Routes are designed around a series of loops, providing passengers with higher frequency than would normally be available. Loop services are also very cost effective to run but can create some confusion to patrons. There is also a high frequency corridor service from Launceston to Mowbray shopping area with services continuing further to the more distant Northern suburbs. There are also lower frequency services to outer suburbs as well as a specialist higher penetration service in the Southern suburbs. The level of service is comparable to other cities with similar populations in Australia and New Zealand.

**Figure 12. Table of Bus Services**

<b>Suburbs or areas</b>	<b>Weekday core day time hours before 6pm</b>	<b>Weekday &amp; Saturday Evenings to approx 10pm</b>	<b>Saturday core day time hours before 6pm</b>	<b>Sunday core day time hours</b>
<b>Northern Launceston</b>				
Launceston to Mowbray Shopping Centre Corridor	10	60	30@	60
Rocherlea	30	60	30	60
University	30	Close to alternative service.	Close to alternative service.	Close to alternative service.
Mayfield/Alanvale	30	Close to alternative service.	Close to alternative service.	Close to alternative service.
<b>Southern Launceston</b>				
King Meadows Shopping area	15L	60L	30L	60L
Newstead, Norwood, Youngtown, Kings Meadows	15	60	30	60
East Launceston and Punchbowl	60#	Close to alternative service.	120	Close to alternative service.
High penetration services to Youngtown and Kings Meadows	6 services	Access to routes 40 & 50	Access to routes 40 & 50	Access to routes 40 & 50
<b>Eastern Launceston</b>				
Ravenswood & Waverly	60#	120	60	120
St Leonards	60	No service	120	No service
<b>Western Launceston</b>				
Prospect – Westbury Road via Hospital	15#L	60L	60L	60L
Prospect Vale, Summerhill, West Launceston	30	60	60	60
Blackstone Heights	6 services	No service	3 services	No service
Hadspen	60	No service	120	No service
<b>Riverside area</b>				
Trevallyn, West Riverside, Riverside, North Riverside	30#	120	60	120
Legana	60	No service	4 services	No service
<i>L - Access by Loop service</i>				
<i># - Additional services during peak hours</i>				

## *Launceston Urban Fringe Services*

Urban fringe services are in three broad groups:

- Cressy/Longford/Evandale/Perth operated by Tassielink
- Beauty Point/Beaconsfield/Grindelwald operated by Manion's coaches
- George Town area operated by Lees coaches

The key feature of urban fringe services are timetables which allow multiple trips including a choice of times to make return trips. Timetables allows for both students and work trips on weekdays as well as allowing weekday and weekend shopping trips to Launceston. There are no evening services other than those which depart almost immediately after 6pm. A number of these services are provided on a commercial basis, subject to market demands (ie. An increase in demand could lead to an increase in services). Low patronage subsequently results in costly and under-utilised services, making it difficult to justify further extensions of these services.

**Figure 13. Number of return daily services to urban fringe areas.**

Suburbs or areas	Route Nos	Weekday core day time hours before 6pm	Weekday Evenings after 6pm	Saturday core day time hours before 6pm	Sunday core day time hours before 6pm
Cressy	740,742 743	7 <sup>#</sup>	1	2	2
Longford & Perth	740 thru 743	8 <sup>#</sup>	1	3	3
Evandale	743,744	3	No service	3	3
Beauty Point	183	6	No service	3	No service
Beaconsfield	183	6.5	0.5	3	No services
Grindelwald	183	4	No service	2.5	No service
George Town		3 <sup>#</sup>	No service	2	No service

# - An additional return service operates primarily for students on School days only.

## *Intrastate Services*

Longer distance bus services are supplied from:

- Hobart operated by Redline and Tassielink
- Devonport operated by Redline and Tassielink
- Smithon/Burnie by Redline
- Mole Creek by Redline
- St Helens (some services connecting from Bicheno) operated by Calow's coaches
- Queenstown/Strahan/Cradle Mountain operated by Tassielink
- Scottsdale/Derby/Winneleah operated by Sainty's

Of these areas, the greatest level of services is provided from Hobart which has either 3 or 4 return daily services.

There are two return services per day between Launceston and Devonport. There are 8 return services a day between Devonport and Burnie with temporal spread before and after normal working hours. This sort of service would facilitate not only commuting but business to business trips.

For other intrastate services most areas have at least a daily weekday service with some weekend servicing. The service from Queenstown is provided twice a week.

Student only services into Launceston extend as far as Bridport, Scottsdale, Blessington, Deddington, St Helens, Ross, Cressy, Deloraine, and Beaconsfield, covering populated areas in between.

### *2007 Review of Launceston Metropolitan Bus Services*

A review of Launceston bus services was undertaken in 2007 as Launceston bus services were not in alignment with metropolitan service standards, patronage was falling and there were a number of operational difficulties associated with existing routes.

Following the review, patronage increased by approximately 10% as services better aligned to market demands. Overall services and routes were simplified, while service frequency improved in some areas. There were significant benefits to the transport disadvantaged and other users following an increase in operating times of bus services to most areas (e.g. Improvements to weekend and night services).

## Cycling

Planning for cycling infrastructure in the Greater Launceston region in recent years has been undertaken at local and regional levels. Council bicycle plans have been used as the basis for the development of:

- The Greater Launceston Regional Bike Strategy – covering recreational and commuting cycling. The strategy was a joint approach by Sport and Recreation Tasmania and five northern councils (George Town Council, Launceston City Council, Meander Valley Council, Northern Midlands Council and West Tamar Council); and
- The Principal Urban Cycling Network: Launceston – focusing on priority urban connections (see below).

### *Principal Urban Cycling Network: Launceston*

DIER, together with local government representatives, cycling advocacy groups and other community based organisations have undertaken a process to identify the highest priority transport-oriented cycling routes in Launceston, Hobart and Devonport/Burnie.

The Principal Urban Cycling Networks (PUCN) provide the arterial cycling structure that urban streets and local council cycling infrastructure can feed into, with the aim of facilitating cycling journeys between suburban areas and activity centres. While cycle infrastructure exists on some routes, it is yet to be developed on others. In some cases, the precise route to be followed has not been finalised, and it will not be possible to do this until some initial feasibility, concept, planning and design work has been completed.

In the Launceston metropolitan area much of the Principal Network and connecting suburban cycling networks are within the Launceston City Council area. LCC has an arterial bicycle network with both on-road lanes and off-road tracks. The PUCN also includes routes through West Tamar and Meander Valley Council areas.

#### ***Greater Launceston Bicycle Commuting Network***

Prior to the development of the Launceston PUCN, West Tamar Council, Launceston City Council, Northern Midlands Council, Meander Valley Council and Sport and Recreation Tasmania developed a draft regional strategy detailing possible commuter and recreation cycling routes and how they could be best linked between councils. At the metropolitan level this work provided essential input into the PUCN.

Beyond the metropolitan boundary the draft Strategy provides a regional approach to longer commuter links and recreational cycling.

# People - Accessibility

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## Key strategic issues

- High dependence on private motor cars
- Planning reform – further integration of land use and transport planning
- Dispersed and low density populations
- Expanded urban areas and urban consolidation
- Induced demand from expanded infrastructure networks
- Limited demographic using public transport where available
- Infrastructure for non-motorised transport
- Encouraging the uptake of more sustainable and non-motorised forms of transport – behavioural change
- Natural barriers, such as the Tamar and Esk Rivers, and their implications for transport access

## Background

Accessibility refers to the opportunity to access places, goods, and services within a reasonable amount of time, cost and ease. Effectively, it refers to how convenient things are. It can also refer to efforts to improve the mobility of people with disabilities in providing ramps and wheelchair accessible vehicles so that they can use the transport system more easily.

Accessibility is affected by three main influences: land use planning, personal characteristics and the transport network or services; accessibility indicators are sometimes developed by measuring aspects of these (Table 1).

Figure 14. Examples of accessibility indicators.	
Factor	Example information
Land use planning	Distance from shopping centre Distance from bus stop
Personal characteristics	Age (ie over 65 etc) Employment status Income Car ownership
Transport network/services	Public transport availability/frequency

For most Tasmanians, private motor car is their main method of transport. For those who don't have access to a car or can't afford to operate one to the extent required, public transport becomes their main means of accessing places, goods, and services.

Tasmania's suburbs are generally set up to cater for private car use. While older suburbs closer to the city may have many opportunities for people to access shops, doctors, chemists, child care centres and other services by walking or using public transport, many newer suburbs are not planned this way. Development in new areas outside the urban boundaries of Launceston such as Legana, Hadspen and Prospect have largely been planned around car use, rather than public transport, walking and cycling. It is extremely difficult for public transport to meet the needs of people living in suburbs which are located away from major centres and have a low population.

There are a number of ways to measure accessibility, one of which involves using mapping techniques to look at the proximity of housing to essential services such as schools, child care centres, health centres, and shops. Public transport and routes can also be included in these maps and a kind of index created to demonstrate how close people live to essential services, and how easy it is for them to access those services. “Milk maps” have been used to demonstrate the relationship between places where it is possible to buy basic food items like a carton of milk and where people live. These studies have generally shown that people living in new outer suburbs have much less opportunity to buy basic goods within walking distance from their homes, whereas older suburbs tend to have small shops within close proximity. This also shows why some cities and suburbs are dominated by private car use, as people need to use a car to access every basic daily need.

## **Development patterns**

### *Population change by Local Government Area*

The greatest population changes in the past 10 years have been the decline in population on Flinders and the increase in Meander Valley (Table 2). West Tamar and Northern Midlands have also shown moderate growth during the period, while Launceston has shown moderate growth but from a high base. Many factors contribute to regional population change, including declining or increasing employment opportunities, location of affordable housing, age/life stage, and lifestyle factors (including a willingness to travel further to work). While population numbers have remained relatively constant in Dorset and Break O’Day over the last ten years, closer inspection shows less subtle changes in the regions’ age profiles with a 9% increase in people aged over 50, with a similar decrease for those under 50 years. These changes may be attributed to lifestyle preferences, a decline in employment opportunities within these municipalities, despite growth in towns such as Bridport. Closer to Launceston, towns such as Perth and Hadspen have become commuter suburbs for Launceston, while significant residential development opportunities have opened up in Prospect (Meander Valley). The figures demonstrate that what people view as the outer limits of Launceston have extended well beyond the boundaries of the Local Government Area of Launceston City Council.

**Figure 15. Population change by Local Government Areas, the Northern Region and Tasmania.**

Name	2001	2011	% Change
Break O'Day (M)	5,695	5,634	-1%
Dorset (M)	7,339	7,351	1%
Flinders (M)	857	776	-9%
George Town (M)	6,271	6,636	6%
Launceston (C)	60,833	64,193	6%
Meander Valley (M)	17,375	18,888	9%
Northern Midlands (M)	11,427	12,228	7%
West Tamar (M)	19,346	21,817	7%
<i>Northern Region</i>	<i>129,143</i>	<i>137,523</i>	<i>3%</i>

**Figure 15. Population change by Local Government Areas, the Northern Region and Tasmania.**

Name	2001	2011	% Change
<b>TOTAL TASMANIA</b>	<b>460,672</b>	<b>495,354</b>	<b>8%</b>

Urban expansion in the Northern Region and improvements to transport infrastructure mean that areas well beyond the urban fringe are now considered accessible to major employment centres. However, growth in areas like Legana and Hadspen is not necessarily matched by public transport services.

Traditional inner suburbs generally provide access to a range of services through co-location of a number of different facilities in one area, with public transport, walking and cycling all used to get around. Outer suburbs generally have fewer local services and are often linked to other service areas by highways and major roads, making walking and cycling less desirable for getting around. Public transport services are less regular to outer suburbs, since population and patronage are generally lower than for busier inner-city routes.

The trend for living in low-density rural-residential areas has reinforced the importance of the car as the main mode of transport for most people in the Northern Region. People are now more accustomed to travelling further to work by car, and are willing to do this to access what is often seen as a better lifestyle where land and housing are also more affordable.

There are a number of ways of measuring travel behaviour, including using Method of Journey to Work (MJTW) data from the Census, information from bus and taxi service providers.

**Figure 16. Method of journey to work, Local Governments, Northern Tasmania, 2011.**

Total trips to work	Break O'Day	Dorset	Flinders	George Town	Launceston	Meander Valley	Northern Midlands	West Tamar
Car, as driver	5702	6293	678	6266	59816	17266	11206	20121
Car, as driver for part or all of journey to work (%)	1180	1665	212	1701	18544	5829	3539	6936

ABS Census of Population and Housing 2011. 'Other' also includes journeys made involving more than one mode.

While the aim is to provide a transport system which is flexible and provides choices for people, in order to deliver this, an understanding of people's travel needs and habits is essential. The main information that is available on passenger travel habits is Journey to Work data from the Census, but little is known about other trips and the complexity of trips taken. Understanding not just where people are travelling, but why and how this can assist in building up a much better picture of transport needs as a whole. Journey to work is significant, since it is often the main journey of the day for the working population and may be linked with other trips such as dropping off children at school/childcare, or shopping. Research suggests that personal trips are becoming more complex, but journey to work data still provides part of the picture in terms of where people are regularly travelling to and from.

The continuing increase in aged population will also represent specific travel needs not captured by journey to work data. This demographic group will have specific needs of both services and travel modes. Ongoing analysis into this is required to gauge a better understanding of how transport needs will continue to evolve.

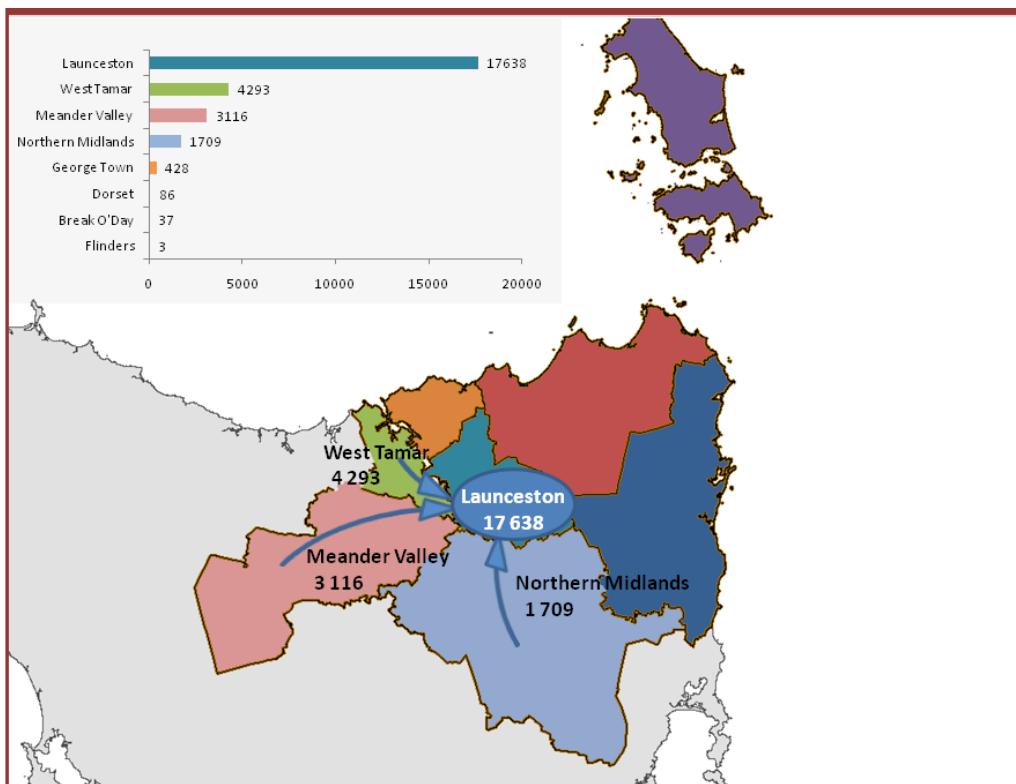
#### *Car use*

Tasmanians are highly dependent on cars for personal transport and the Northern Region follows this trend. For many, the shift towards car-based travel has improved accessibility since they have flexibility in their travel and can more easily meet daily transport needs.

Increasing levels of car use can be attributed to:

- Population increases
- Decreasing urban density through population change – increasing levels of development outside the city
- Development of services, employment centres and recreational facilities in areas which are most easily accessible by car
- Increasing levels of car ownership
- Flexibility of car-based travel
- More complex travel patterns for a number of reasons including: changes to working hours (ie shopping, services open longer), greater demands on time, lifestyle changes etc

Population growth has corresponded with an increase in car ownership. This may also be due to an increase in people living in outlying areas, rather than in urban areas where public transport is more readily available. Many people also prefer to use their car so that they can travel directly from one place to another in a relatively short time and in greater comfort compared to using public transport. In larger cities where congestion is a major problem and particularly where passenger rail is available, travelling by car can often be less convenient than using public transport. In Tasmania, travelling by car, even during peak periods, is still relatively easy. Journey times are fairly predictable and parking in inner city areas is still relatively cheap and readily available compared to many other parts of Australia.



**Figure 17. Map of Northern Region showing key flows of people into Launceston, 2006. ABS Census of Population and Housing 2006.**

As the map demonstrates, there are a large number of work trips into Launceston, mostly from within Launceston LGA, West Tamar and Meander Valley. Launceston is a major employment centre and the largest Journey to Work destination for the Northern Region.

### Walking

Most trips start and finish with a walking section, making pedestrians the largest road user group. Walking is the most popular non-motorised form of transport for travelling to work in the Northern Region, and has environmental and health benefits. Walking is obviously partly dependent on distance from work, school, shopping etc, so people living closer to commercial centres such as Launceston city are more likely to walk than those living further away.

Pedestrians need to feel safe in their environment. While pedestrian facilities are mostly planned and provided for by local government, the State government also has a responsibility for pedestrian infrastructure along the arterial road network. Urban design that encourages walking through a safe and attractive pedestrian environment helps to create a sense of community and facilitate social cohesion.

Initiatives to encourage and provide for pedestrians include:

- Provision of traffic calming, speed restrictions, crossings and refuges and greater priority for pedestrians near busy environments such as schools and shopping areas
- Provision of safe, attractive and convenient pedestrian networks to activity centres, schools and public transport

- Development which is designed and caters for the safe movement of pedestrians, disabled people and people with prams
- Walking promotion programs in schools and workplaces eg. walking school bus
- Urban development which is grid-based or provides interconnected street patterns to help people move more easily through neighbourhoods

#### *Personal characteristics affecting accessibility*

There are a number of personal characteristics which affect how people can use the transport system to access their basic daily needs. These include age, employment status, car ownership and access, income, and mobility. People who are living on a low income or do not have access to a car may be seen as transport disadvantaged. This is further exacerbated by living in an area which is not regularly serviced by public transport, as is the case for many rural areas in Northern Tasmania.

## **Accessibility Case study: Location of Child and Family Centres**

DIER has been involved with the Department of Premier and Cabinet to assist with determining the best location for Child and Family Centres. Mowbray was investigated as a location for a Child and Family Centre and accessibility mapping and analysis was used to provide input into whether this area would be an appropriate location for a centre.

The information which was used to inform the study included demographic information from the ABS Census of Population and Housing 2006 such as age, employment status, and access to a motor vehicle. The SEIFA index was also used, which is a measure of advantage/disadvantage. Information on the location of schools and other centres was used, as well as public transport linkages, and topographic information on the gradient of roads – indicating how walkable they are.

The detailed analysis used in the study helps to demonstrate the importance of land use planning and accessibility in determining the site for essential public services – particularly in areas of socio-economic disadvantage.

# Mowbray

## General Description

Mowbray is around 3-4 kilometres north of the Launceston city centre and lies on the eastern side of the Tamar River. Surrounding suburbs are Invermay and Inveresk to the south, Newnham, Mayfield, Alanvale and Rocherlea to the north and Ravenswood to the east. The main access through Mowbray is Invermay Road, with limited access to the East Tamar Highway which runs along the western boundary.

Land use in Mowbray is mixed, with residential, commercial and educational uses predominating. Commercial and retail space is generally concentrated along Invermay Road with residential areas behind. As a relatively small suburb, educational use dominates parts of the landscape, with Launceston Church Grammar School and Mowbray Primary School within the analysis area and the University of Tasmania and the Australian Maritime College on the northern boundary in Newnham.

Mowbray offers the widest range of commercial and retail opportunities in the area, potentially attracting patronage from suburbs to the north and south. Services include a shopping centre and supermarkets, newsagents, food outlets, medical services and banking facilities.

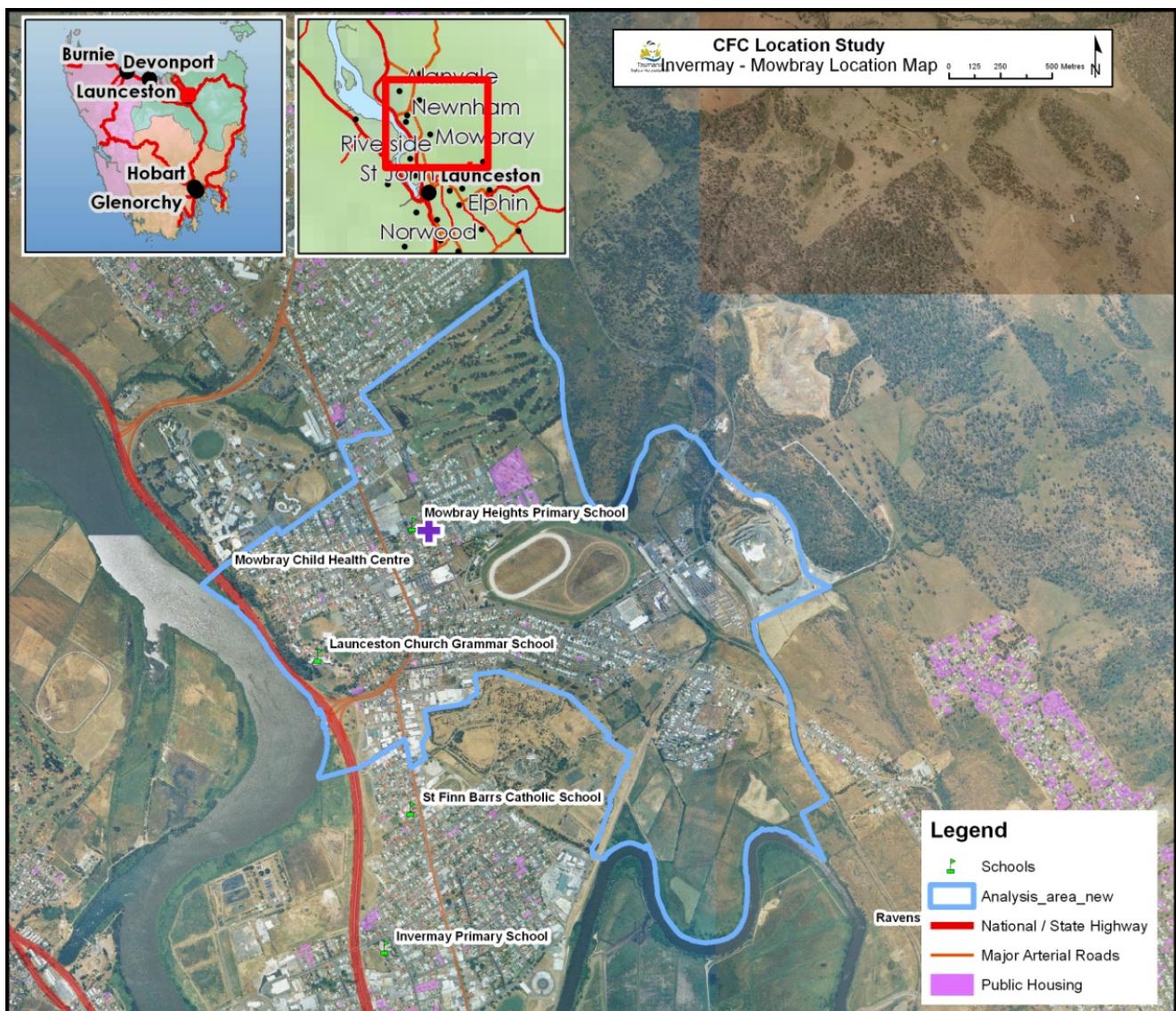
The median age of residents of Mowbray was 30 at the last census, with 16.5% of the population aged 0-14 and 22.7% of the population aged over 55 years of age. More than half of the residents were in the labour force in 2006 with around 60% in full time employment. Relative advantage and disadvantage, as measured by the Socio-Economic Index for Areas (SEIFA), placed the Mowbray in the more disadvantaged group for Tasmania (based on 2006 Census figures)..

Public housing comprises nearly 10% of the analysis area and around 17% of households do not have a motor vehicle.

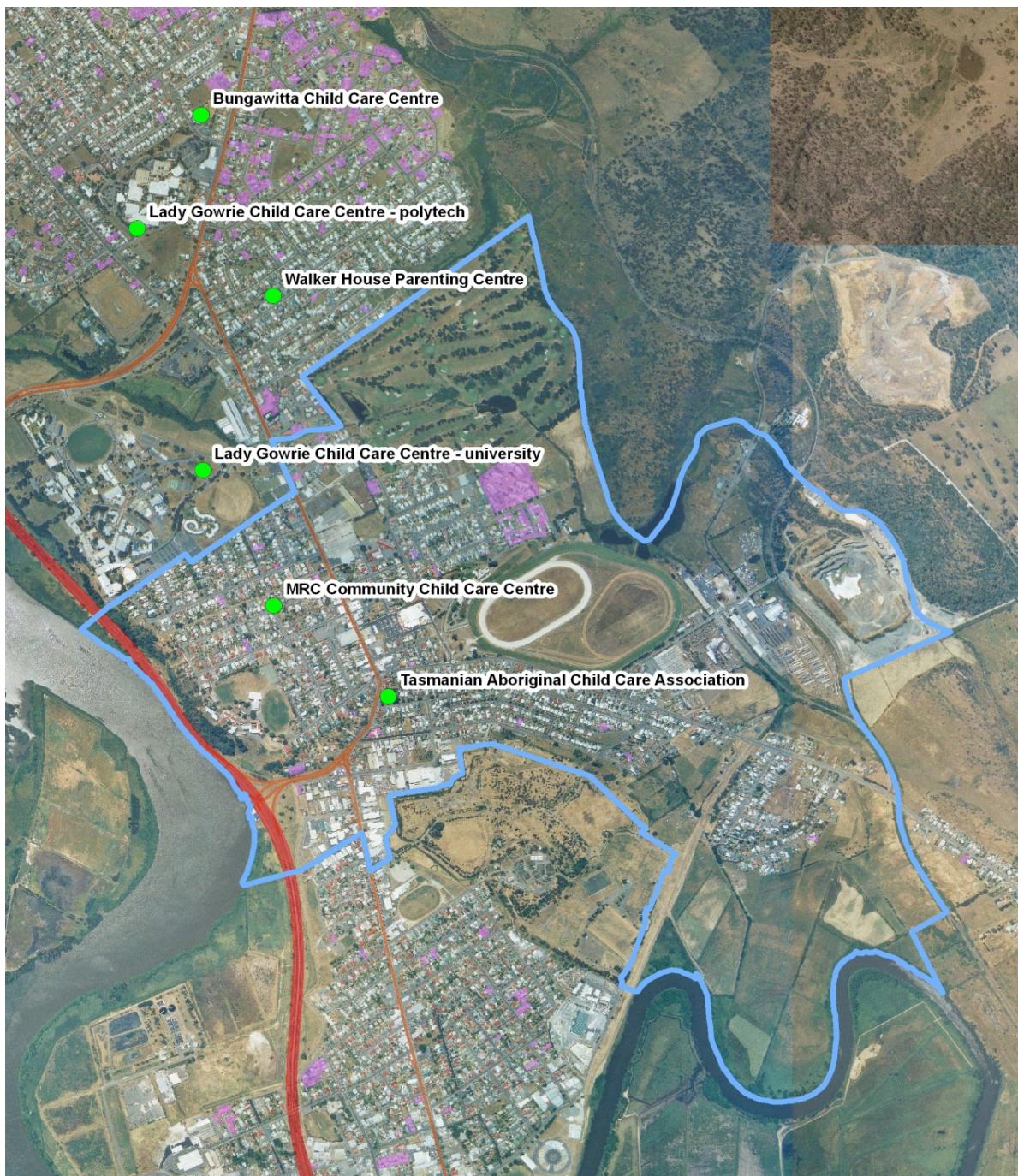
## Local Area Analysis

### *Child-related services*

Schools, child care centres and child health services in the area were mapped.



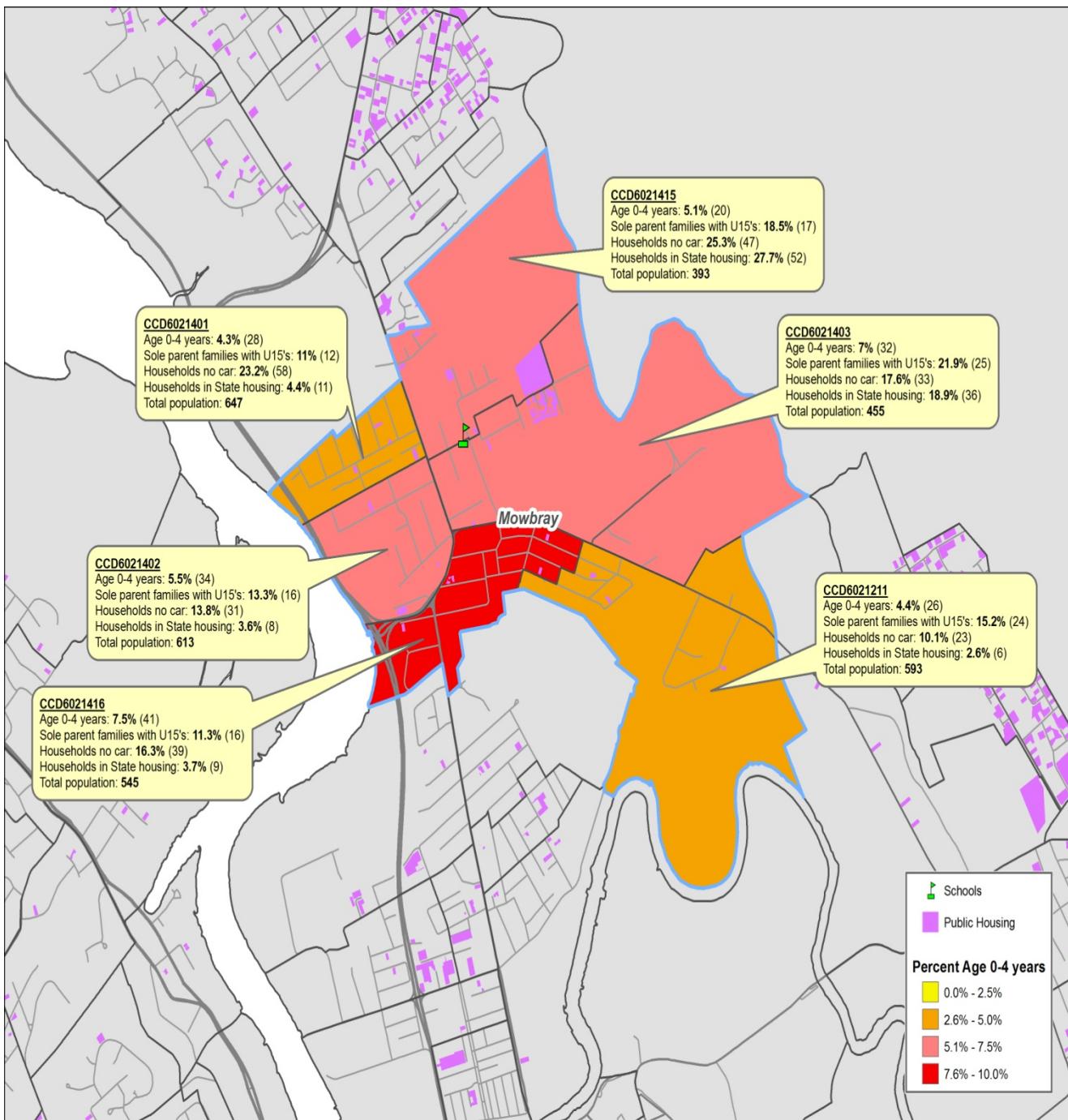
**Figure 17. Location study area.**



**Figure 18. Map of Mowbray displaying child care facilities.**

### *Demography*

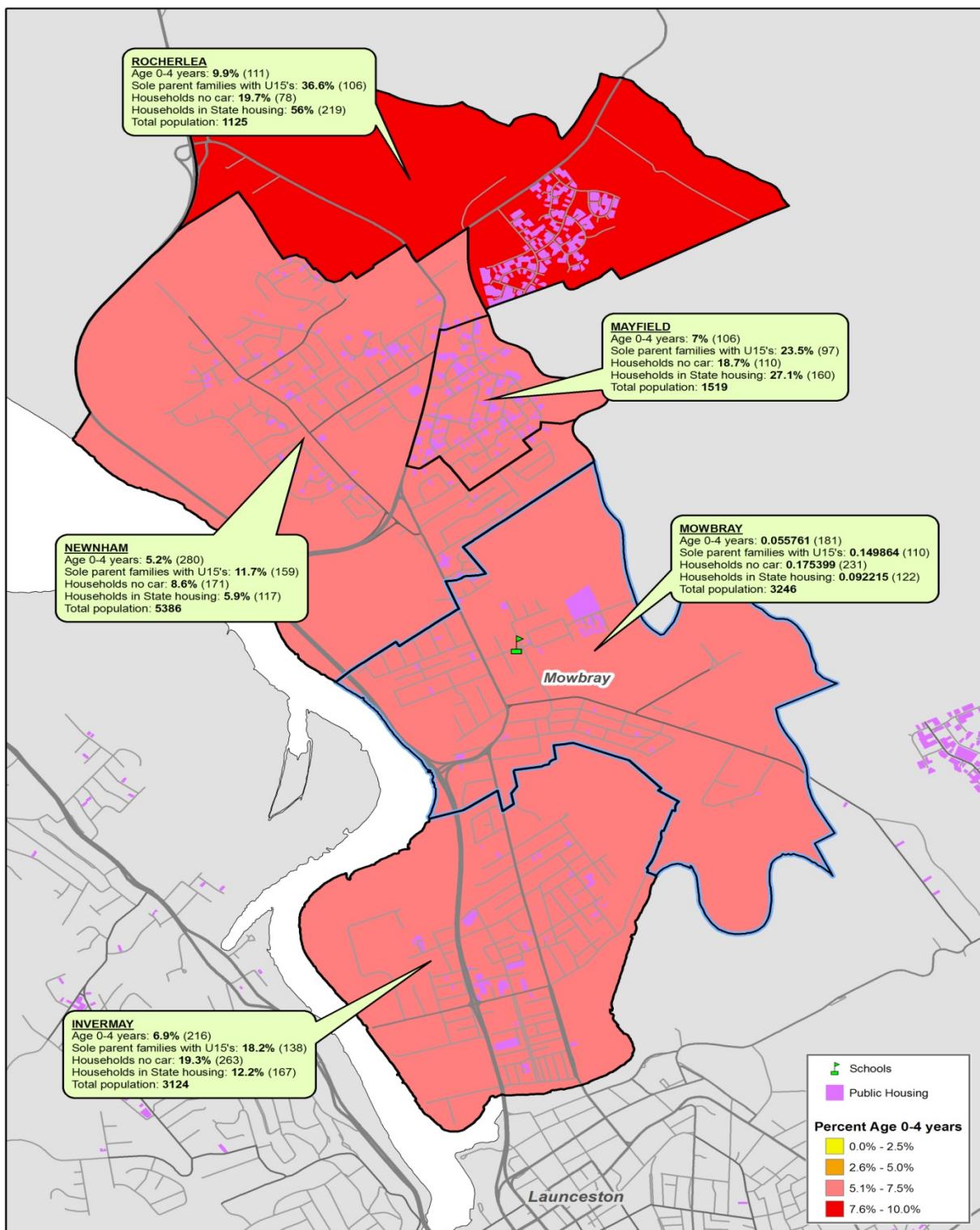
The analysis used the Census Collector District (CCD) geographies to look in more detail at the areas around the study area.



**Figure 19. CCD level map of Mowbray with key Demographic Data.**

### Surrounding Areas

Some of the suburbs that surround Mowbray have similar demographic profiles to the study area, indicating target groups that may also benefit from a Child and Family Centre. As Mowbray provides a range of services, it is an attractor for the surrounding suburbs.



**Figure 20. Map of Mowbray – suburb level – with key demographic data.**

#### Local transport options

The East Tamar Highway bypasses most of the urban area, using the lower flat land along the Tamar River. Invermay Road and Georgetown Road combine to make the main connecting transport corridor through the urban areas, providing the access spine for Mowbray and connecting the area to adjacent suburbs and the Launceston CBD.

## Public transport services

Metro Tasmania provides regular bus services along Invermay Road, connecting the Launceston CBD through to Rocherlea. *Walking and cycling*

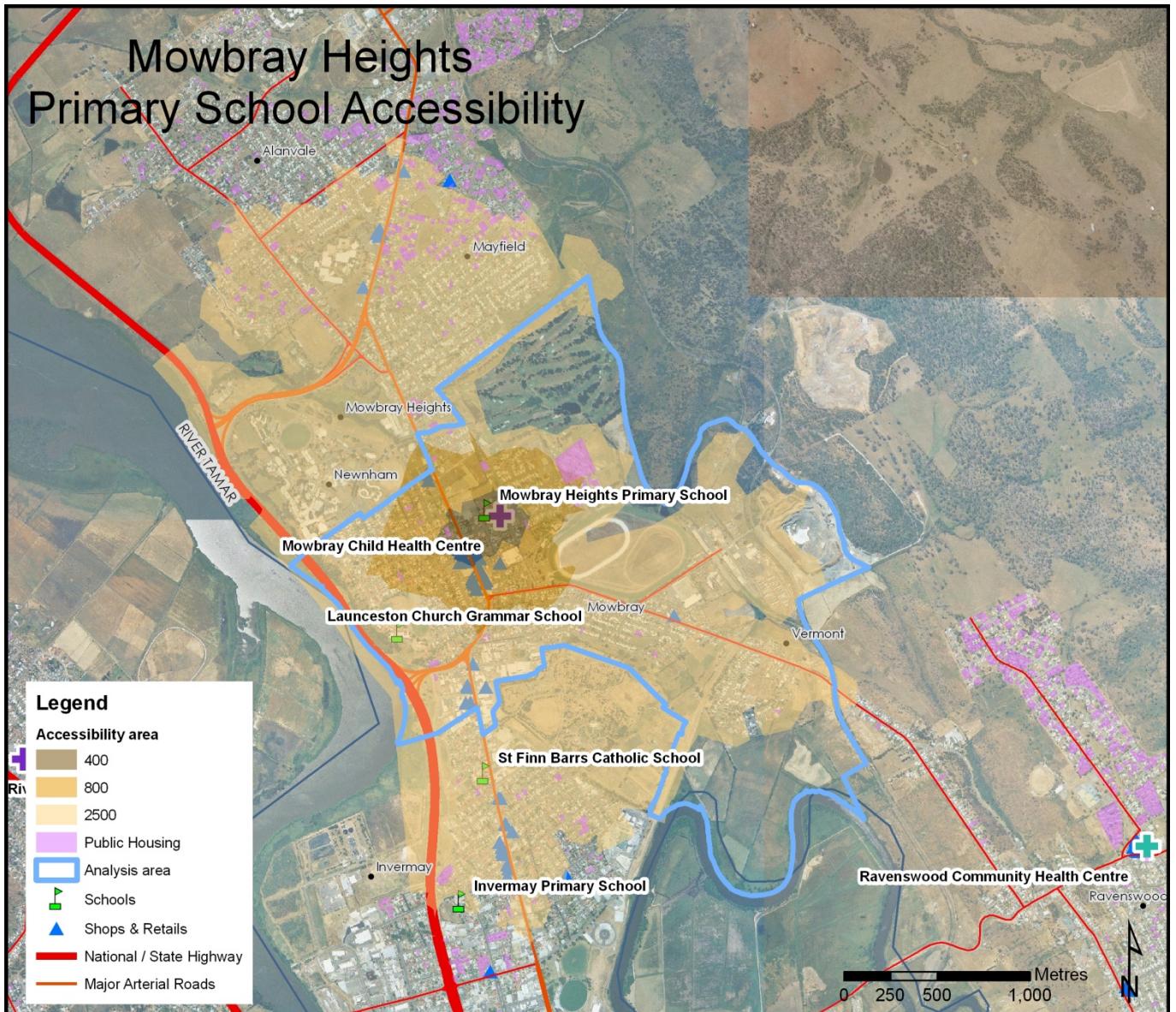
Most of the Mowbray area is located on flat terrain. A grid system of streets offers good access between residential areas, the commercial retail strip and the primary school. Traffic flows on Invermay Road may present a barrier. However as a single lane carriage way with several signalised crossing points, access should not be significantly impeded.

## Site Specific Analysis

The Mowbray Heights Primary School site was considered as it is centrally located. The School is on approximately 2.4 ha of land co-located with a Child Health Centre and an Oral Health Centre. There appears to be some space available for expansion and a rationalisation and amalgamating of services may provide opportunities that would not impinge on the current open space.

Accessibility maps and tables for Mowbray were developed based on the street access. As a centrally located Mowbray site was likely to attract clients from the surrounding suburbs, analysis was expanded beyond the study area to include all dwellings within 2.5km. The results suggest that this would pick up more than 2600 dwellings, the majority between 800m-2.5km and with nearly 300 dwellings between 400 and 800m of the school. The expanded analysis also includes an extra 254 State housing dwellings, mostly in the 800m-2.5km zone.

Dwellings within analysis area only					
Distance(m)	All Housing	%	Public Housing	%	
0-400	113	9.05	13	9.77	
400-800	277	22.18	18	13.53	
All dwellings within 2.5km					
Distance(m)	All Housing	%	Public Housing	%	
0-400	113	2.88	23	5.94	
400-800	277	6.69	18	4.65	



**Figure 22. Map of Mowbray Heights Primary School and zoning considering accessibility.**

## Conclusions

The study concluded:

- Specific demographic and socio-economic analysis confirmed the study area as having a reasonable level of need for a Child and Family Centre.
- Mowbray offers a wide range of services for local residents and the surrounding community, providing opportunities for multi-purpose trips.
- Analysis suggests the Mowbray Heights Primary School is the most appropriate location within the study area.

# People - Integrated transport and land use planning

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## Key strategic issues

- Maximising the use of the region's existing transport infrastructure through efficient land use planning
- Dispersed urban areas, relatively low density populations and significant opportunities for urban consolidation
- Ageing population and decreasing household sizes
- Planning reform – further integration of land use and transport planning
- Future changes in industry structure across the region, changing demand across the region's transport system

## Background

People use the transport system to access the activities that form part of their daily lives. The location of residential areas in relation to these activities, such as schools, shops, workplaces and medical services, has a major impact on how people use the network – the mode of transport they choose, the distances they travel, and the time it takes them to make their journey. Land use planning is a key influence on the location of both residential areas and activity centres.

Some settlement patterns can lead to outcomes that are suboptimal for the region's transport system. For example, reliance on large greenfield housing estates on the edge of major settlements, or significant expansion of low density living in rural areas, can lead to high car dependency. Similarly, having the car as the dominant mode of transport encourages development which can be accessed by cars rather than public transport.

On the other hand, increased density in inner urban areas, or development located close to existing housing and public transport, provide people with a wider range of transport options to reach their daily activities.

Access to activities for all people, not just those with a car, is a key element of creating liveable urban areas. This is often referred to as accessibility, the ability to reach the places we need to go, by a range of transport modes, within a reasonable time and cost. Accessibility can be improved by changing land use and development patterns.

Better integration between the location of particular land uses in relation to the transport system can help to improve accessibility by increasing choices in transport modes and reducing travel demand.

Due to the influence of land use and transport on each other, integration between transport and land use planning is important. Key actions to better integrate transport and land use planning are:

- Ensuring new residential development is near proposed and existing transport networks including public transport, walking and cycling
- Improving public transport, walking and cycling linkages to existing and planned development

- Encouraging activity-intensive, transport-oriented development, including key activity centres (e.g. shopping centres, schools and health care facilities) in locations that are accessible by walking, cycling and public transport from high population areas
- Ensuring existing and planned transport routes accommodate all transport modes, including cars, buses, pedestrians and cyclists

Integrated land use and transport planning operates at a number of different levels:

<b>State/regional</b>	<p><b>Protection of ports, airports and industrial areas from encroachment by other activities which might compromise their function</b></p> <p><b>Promotion of higher density residential and commercial development in areas that are supported by public transport and have services nearby</b></p>
<b>Towns/local</b>	<p><b>Planning for high traffic-generating industrial activities in ways that maximise access to key arterial roads</b></p> <p><b>Ensuring vehicle-oriented commercial activities like bulk goods stores, are located in areas that minimise use of the local network</b></p> <p><b>Provisioning high demand land uses in central locations to allow maximum access by non motorised transport modes</b></p>
<b>Sites</b>	<p><b>Ensuring commercial activities provide sufficient on-site or local parking to reduce demands for on-street parking</b></p> <p><b>Ensuring residential lots can safely access the road network</b></p>

**Figure 1. Examples of how land use and transport planning operate and interact at different levels.**

Some key factors influencing the Northern Region's passenger transport system into the future include:

- A highly dispersed, car-centric settlement pattern
- Low utilisation of public transport, walking and cycling
- Demographic changes – including an ageing population
- Significant industry restructuring – affecting commuter patterns and freight movements
- Ageing transport infrastructure with high existing maintenance costs

Over the last 10 years, there has been strong residential growth in the urban fringe settlements of Prospect, Hadspen, Longford, Perth, Evandale. This is due to a combination of:

- Lifestyle decisions to escape the hustle-and-bustle of inner urban living; and
- Availability of affordable land, in close proximity to services and amenity, with good transport accessibility.

Settlement patterns, choice of housing location and transport cost and availability have a major impact on an individual's personal mobility. While walking and cycling may be cost and time efficient, the cost of inner-city housing prices may be prohibitive for many. Similarly, owning and operating two or more cars in less-accessible areas can have significant costs of their own, and is often a trap for lower socioeconomic families.

Dispersed and low density residential development patterns have reinforced the dependence on cars for most trips and limited the use of public transport, walking and cycling. Growth and development in outer urban areas has generated increased traffic volumes along core arterial roads. The arterial road network has a limited capacity to adapt to major population shifts, growth or development demands.

Cars, whilst costly to run and maintain, meet the conditions of almost all transport needs. They provide significant mobility and flexibility for the majority of individuals: no other transport mode has been able to match the advantages of cars in meeting the full range of travel needs. They continue to match the growing diversity of geographical and temporal movements representative of opportunistic residential settlement patterns and changing employment patterns.

When accessibility and mobility are constrained, transport disadvantage occurs. Age, income and health can affect the ability for individuals to use, afford and access transport services. The State's rapidly ageing population will have significant impacts on the future transport system and land use.

The Northern Region's population is ageing both numerically and structurally. Numerically, there is an absolute increase in the numbers of persons 65 years and over; structurally, the proportion of persons aged 65 and over is increasing with a declining birth rate and outward migration of youth. These changes will mean a shift in the desired housing type and availability in the future, and also its location and accessibility to essential health and community services.

There is also a need for increasing employment potential, as well as skills and knowledge to make the Region more competitive.

Uncertainty surrounding major industries across the region, such as forestry and manufacturing, has led to changes in demand across the transport system, such as commuter flows and the movement of freight. This is likely to continue into the future. For example, the expansion of agriculture, and the relocation or decline of other industries, will heavily influence the patterns of freight movement across the network.

Like other parts of Tasmania, transport infrastructure in the Northern Region is ageing and maintenance costs are high. Funding is limited, which means that future industry and residential planning must be prioritised. The locations of new residential and industrial development should seek to maximise use of existing infrastructure, and minimise demand for expensive capacity upgrades, where possible. It's also important that future transport corridors are protected so that they can be available for use when necessary to support likely future growth in freight or passenger movements and to avoid or minimise disruption

by having incompatible developments co-located (eg prevention of new residential development including schools next to identified future priority freight corridor).

The *Regional Land Use Strategy of Northern Tasmania* was developed to guide land use, development and infrastructure investment decisions for the Northern Region. It provides a Regional Settlement Hierarchy, with a view to categorising settlements and linking these categories to policies for land use planning. The hierarchy also gives an indication of the types of services which can be expected for each category – noting that it is important that there is a broad range of options available for people in deciding where and how they want to live.

The hierarchy includes:

<b>Figure 23. Regional Settlement Hierarchy, Northern Region.</b>		
<b>Category</b>	<b>Place</b>	<b>Features/Services</b>
Regional City	Launceston City Prospect Vale Riverside	Full provision of utilities and urban infrastructure Central business district Regional significant health and education facilities
Satellite Settlements	Legana Hadspen Evandale Perth	Key urban centre functions including local retail, commercial and community services

District Centres	Longford Deloraine Campbell Town George Town (Bell Bay and Low Head) Beaconsfield Exeter St Helens Scottsdale Whitemark	Significant settlement areas with a wide range of services, often including local employment opportunities
Rural Towns	Lilydale Westbury Beauty Point St Marys Bridport Lady Barron	Larger townships, provide services, often where distances to major urban areas make regular travel difficult
Rural Villages	Ross Avoca Cressy Bracknell Carrick Chudleigh Greens Beach Meander Mole Creek Hagley Fingal Scamander Derby	Small mostly residential settlements with basic services for daily needs
Rural and Environmental Living	Balance areas including parts of George Town Pt B , Launceston Pt C	Residential settlements with limited or no services and commercial activity, often dispersed/low density May have a local convenience shop

The hierarchy corresponds to expectations of service provision from Government. For example, it would be unrealistic for all rural towns and villages to expect high-frequency and maximum-coverage public buses servicing their townships. The cost of providing these services is much greater than for areas within the city as the population density is much lower. Government aims to provide large-scale services in the dominant population centres, with linkages from other centres so that people can access what they need. Future housing development needs to be carefully planned around the provision of these services, so settlement patterns which support these categories focus on:

- Promoting infill in existing centres
- Redeveloping infrastructure rich areas
- Maximising residential yield in major new residential developments (ie best use of land)
- Protecting existing transport corridors from conflicting adjacent land uses which reduce their primary purpose and efficiency (ie. Principal freight network)

# Freight - Infrastructure

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## Key strategic issues

- Uncertainties regarding immediate future of various industries in the Northern Region (forestry and forest products, agriculture and shipping at Bell Bay)
- Significant loss of secondary industry in North East over the last decade
- Impacts on freight task and different requirements for the freight system
- Adaptability of industry within planning frameworks
- Demand for flexibility in moving freight
- Extensive and ageing road and rail network
- Use of inappropriate urban roads impacting on the amenity of residential and retail areas
- Need to consolidate and centralise freight nodes (including ports)
- Diverse and spatially separated freight demand (eg forestry, mining, agriculture)
- Infrastructure constraints at different parts of the transport system (eg limitations on rural roads and bridges for freight movement)
- Predicted increases in food processing industries and niche products – future irrigation scheme
- Limited resources – Government being asked to do more with less
- Growing transport demand in a carbon constrained economy

## Background

Freight movement is important for the Northern Region. Industries can generate high volumes of freight traffic both in urban areas and across the region. The location of different industries in relation to roads, rail, ports, airports and other infrastructure and services is a key demand driver of the transport system. Industries and businesses can also have an impact on the community through noise, water supply and waste disposal.

In order to better understand the transport system, how it operates and how transport infrastructure is used, it is essential to gain an understanding of freight and how it moves in the Northern Region. The relationship between industry and the transport system involves supply and demand: the location of industrial areas and their linkages to the transport system, and current freight movements and how this demand will change in the future.

The freight task is heavily focused on the State road network. Freight predominantly moves intra-state via road, with rail generally being used for bulk goods travelling longer distances. There have been a number of industry changes within the Region in recent times which have an impact on freight and how it moves, including decreases in forestry and manufacturing and increasing investment in agriculture and the irrigation network.

The Australian Government has provided \$1.5 million for the establishment of a Freight Logistics Coordination Team. The Team will provide expert advice and guide the completion of a long-term freight strategy in Tasmania, providing recommendations to the Minister for Infrastructure on Tasmanian supply chain issues as part of this process.

## Overview road network

Road is the dominant mode for freight transport, with an extensive public network of approximately 7,500km<sup>2</sup> connecting rural and urban areas and linking to other regions. Just over half or 3,775km is sealed, and the total represents 35% of Tasmania's public road network. Ownership of the network comprises:

- 1,150km of DIER managed state roads - all but 7km are sealed. This component includes the two National Highway segments, the Midland and Bass Highways totalling X km.
- approximately 4,800km of local government roads - 2,587km sealed / 2,211km unsealed
- approximately 1,575km of other public roads – predominantly owned by Forestry Tasmania with all but 45km unsealed

While the majority (64%) of the public road network is owned by local government, the State owned (15%) portion carries the most intensive freight (check this) task and connects all major population centres, export points and major industrial areas. In 2008/09 the state road network carried 78% of the northern region's heavy freight task in tonne-kilometres<sup>3</sup>. The topography of the area is important in defining many of the region's transport links and alignment. Eg In metropolitan Launceston, there are a limited number of routes that freight vehicles can take to get across the city, partly due to the location of the Tamar River, Cataract Gorge and steep terrain on the edges of the city.

### *Key inter-regional links*

The key inter-regional links are the most important road and rail links enabling movements of passenger vehicles between large population centres in the three regions and movement of freight across regional boundaries to major shipping, processing or industrial sites. The Roads include Illawarra Main Road and Bass, Midland and East Tamar Highways and Southern, Western and Bell Bay rail lines.

These key links align with National Land Transport Network road and rail corridors (with exception of Illawarra Main Road which is not included) and the State owned roads align with DIER's Tasmanian Road Hierarchy Category I Trunk Roads classification.

The Bass Highway links the Northern Region to the North West, in particular to Devonport and Burnie which are the North West region's most populous towns and Tasmania's major container shipping ports. The Midland Highway links the North and South regions, and the two major population centres of Hobart and Launceston. These two highways in combination with Illawarra Main Road also serve as the major inter-regional link for vehicles travelling between the South and North West regions.

Similarly, the importance of the Southern and Western Rail Lines as key inter-regional links is largely as a result of freight between the South and North West regions, with just a small component having an origin or destination in the northern region.

The major freight components by tonnage on the Bass and Midland Highways are agricultural products and consumer goods which in combination make up approximately 2/3 of the

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<sup>2</sup> Road length based on the LIST road network, and divided roads are treated as separate lengths.

<sup>3</sup> Tasmanian Freight Survey 2008/09, DIER

freight task. On the East Tamar Highway forestry logs dominate the task with agriculture the largest component. Inter-regional rail links carry a far lower task than the road links (annually 0.2-0.7 million tonnes compared to 2.5-3.5 million tonnes) with major freight components wood products, agricultural products and zinc making up over 80% of the task.

Both the East Tamar Highway and Bell Bay rail line have been included as inter-regional links because of their connection with the Bell Bay and Longreach industrial areas and Bell Bay Port. Recent reductions in shipping services combined with a contraction in the forestry industry have resulted in a large decline in freight on both of these links, and the likelihood and timing of future industrial expansion or trade increase through the port expansion resulting in increase in freight on these links remains uncertain. Despite currently serving a greater regional function, they are included as inter-regional links given their past and possible future role.

A number of council owned roads provide linkages through metropolitan or industrial areas on these key inter-regional routes and their performance is important factor in determining how the route operates as a whole. For example Bathurst & Wellington Streets connect the Midland and East Tamar Highways though Launceston and are important in the key inter-regional link from the Port of Bell Bay to southern Tasmania. These metropolitan links do also play an important role locally for urban passenger and freight transport and therefore are discussed in greater detail there.

### *Key regional links*

Regional roads serve an important role in moving people from regional and rural areas to major regional cities or key inter-regional links, and in transporting freight from resource and industrial areas to export and processing points. Some key inter-regional links, such as the East Tamar Highway, also play an important regional role.

In the Northern Region, regional roads in general move mainly forestry and agriculture products or inputs. Some specific road and rail linkages are also important for transport of local construction materials, mined resources such as coal, or consumer goods. The Fingal rail line is the only regional rail link, while strategic regional roads include:

- Batman Highway
- Tasman Highway
- West Tamar Highway
- Frankford and Birralee Main Roads
- Bridport Main Road
- Esk Main Road
- Poatina Main Road
- Evandale Main Road
- Lilydale and Golconda Roads
- Lady Barron Main Road
- Gladstone Main Road
- Ringarooma Main Road
- Lake Leake Main Road

Council owned sections through towns on these key regional links are integral to the routes' performance.

## *Key metropolitan links and urban transport corridors*

Strategic urban roads are critical links in the region's freight and passenger networks. Key metropolitan links and urban transport corridors in Launceston include:

- *Bathurst / Wellington Streets couplet*: the key links through central Launceston, linking the southern and northern suburbs of Launceston and vital role connecting regional or inter-regional links north and south of the city.
- *Charles / Goderich Streets*: north of Launceston serving a similar role to Bathurst and Wellington Streets connecting the East Tamar Highway to central Launceston and used as a major urban route from Invermay, Mowbray, Newnham, Mayfield and Rocherlea
- *West Tamar Road*: key passenger route from suburbs on the western shore of the Tamar River including Trevallyn, Riverside and satellite suburbs further north including Legana, Rosevears and Grindelwald
- *Westbury Road*: Major route from western suburbs Prospect, Summerhill, Prospect Vale and satellite suburb of Blackstone Heights
- *Elphin Road / Penquite Road / Hobblers Bridge Road*: form a key passenger route from Launceston eastern suburbs including Elphin, East Launceston, Norwood and Waverley and connects to Tasman Highway and North East
- *Cimitiere Street and Invermay Road*: provide important connections to industrial and commercial land in inner eastern suburbs
- *Kings Meadows Link / Quarantine Road / Johnston Road / St Leonards Road*: Linking Blessington Road (important for forestry freight and agriculture) and industrial areas along St Leonards Road to Midland Highway and intersecting other key metropolitan links including Hobart Road and Penquite Road.
- *Hobart Road*: southern suburbs (Kingsmeadows, Youngtown) into Wellington St

## **Road funding and expenditure**

From a user's perspective, the region's transport system is a single, generally seamless network. In practice 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.

North East Freight Roads Projects:

Total funding allocation \$42.5 million for North East Freight Roads projects

- East Tamar Highway – \$80 million upgrade (complete)
- Tebrakunna bridge replacement across the Ringarooma River at Pioneer (complete)
- Tasman Highway and Gladstone Main Road upgrades between Derby and Herrick (upgrade to cross section and curve improvements)
- Bridport Main Road – Scottsdale to Bridport (upgrade to cross section and curve improvements)

- Replacement of five key mass limited bridges in Mathinna/ Evercreech forest catchment areas
- Prossers Road and Patersonia Road upgrades to junctions and drainage improvements along Prossers Road (Launceston City Council owned roads)
- Targeted curve and pavement improvements to Camden Hills Road (Launceston City Council owned road)
- Junction upgrades (Temco and Mobil Roads at Bell Bay) to improve turning movements for heavy vehicles (\$1 million Community Roads Program)

## Rail funding and expenditure

The rail network currently only carries rail freight – passenger rail services across the network ceased in the 1970s. While the majority of the state's freight task is moved by road, rail is an important modal option for moving large volumes of bulk commodities and long distance movement of containerised freight.

The Northern Region is connected to the North-West Region via the Western Line, and the Southern Region via the South Line. These two lines carried around 2.4Mt of freight through the region in 2008-09; additionally, the Bell Bay Line carried nearly 200,000t between Launceston and the port at Bell Bay; the Fingal Line, connecting Fingal to Conara junction on the South Line, moved over 150,000t of coal.

Proposed works:

- Extensive statewide program
- Purchase of 17 new locomotives to be used across the network at a cost over \$60 million. The new locomotives will improve efficiency of services, and increase safety and reliability. Delivery of the new locomotives will commence in mid 2013, with completion scheduled for mid to late 2014 and funded by the Tasmanian Government
- Ongoing capital upgrades of rail track infrastructure. The recently completed Rail Rescue Package included significant sleeper replacement & drainage remediation on the Bell Bay Line. Following on from the Rail Rescue Package (\$78 million), a further \$130 million has been allocated by the Australian Government under the Nation Building Program to continue the improvement of the track asset across the network, completing in 2013/14. The Tasmanian Government has also contributed a further \$70 million for maintenance and administration over the same period.
- A number of projects around the Bell Bay area up to \$9 million including: redevelopment of George Town Railyard to allow efficient transfer of containerised freight originating in Bell Bay area to rail
- Upgrade to Old Bell Bay Road
- Rail crossing safety improvements around the port
- Aim is to reduce the impact of road freight movements between Bell bay and Burnie through use of the rail network
- DIER working with Tasrail & Tasports to present project to Fed Govt for funding approval.

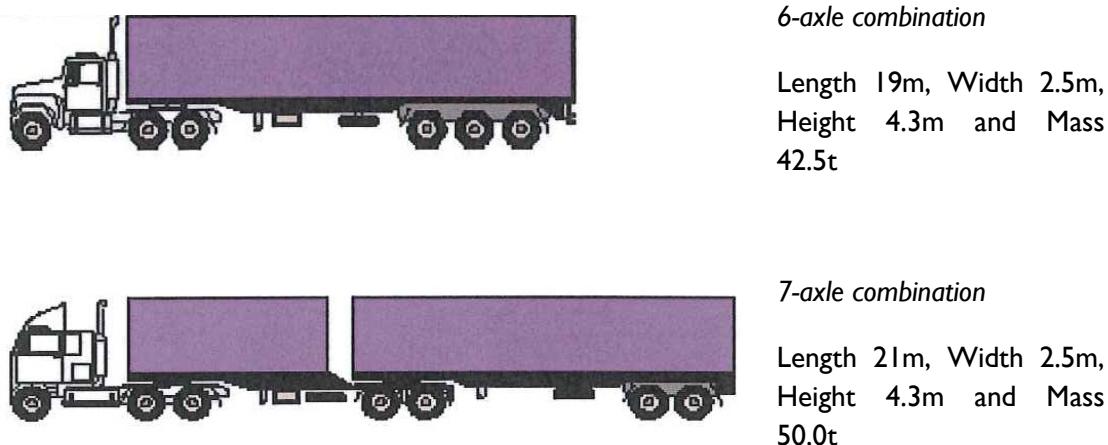
## Freight movement

*General Access & Vehicle Regulations:*

Heavy vehicles that use Tasmania's road network come in a wide range of vehicle types and trailer combinations. Types of heavy vehicles used on Tasmania's road network are regulated by government to protect the road infrastructure and ensure safety. These measures dictate the weight and dimensions of different types of heavy vehicles. Weight limits are generally related to axle combinations and the wear that these cause to road pavements and structures, whereas length limits are related to the amount of road space that different heavy vehicles occupy.

The majority of Tasmania's heavy vehicle fleet are truck and trailer combinations that are allowed "general access" to Tasmania's entire road network. These vehicles must meet regulated mass or dimension limits. General access vehicles generally have a single trailer, but some general access vehicles have two trailers. The maximum vehicle combinations for general access vehicles are outlined in Figure 1.

**Figure 24. Maximum General Access Vehicle combinations**



#### *High Productivity Vehicles and Higher Mass Limit vehicles*

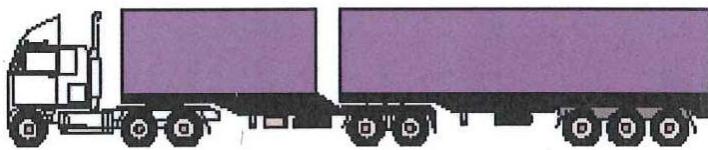
Some specific types of larger, heavier vehicle combinations are allowed to operate on specified roads across Tasmania, restricted to roads specified in the *Vehicle and Traffic (Vehicle Operations) Notice 2009*, or roads defined in individual vehicle permits.

There are two main types of vehicles that fall into this category: High Productivity Vehicles (HPV) and Higher Mass Limits vehicles (HML).

A High Productivity Vehicle is a vehicle or combination operating under a conditional exemption that exceeds the regulatory mass and dimension limits. Typical HPV combinations are shown in the below diagram.

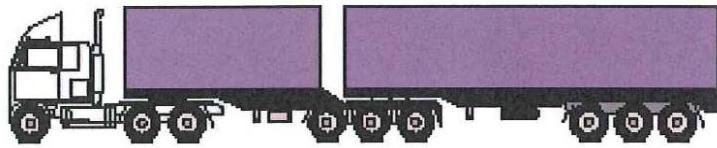
**Figure 25. High Productivity Vehicle combinations**





*8-axle combination*

Length up to 26m, Width 2.5m, Height 4.3m and Mass up to 63t

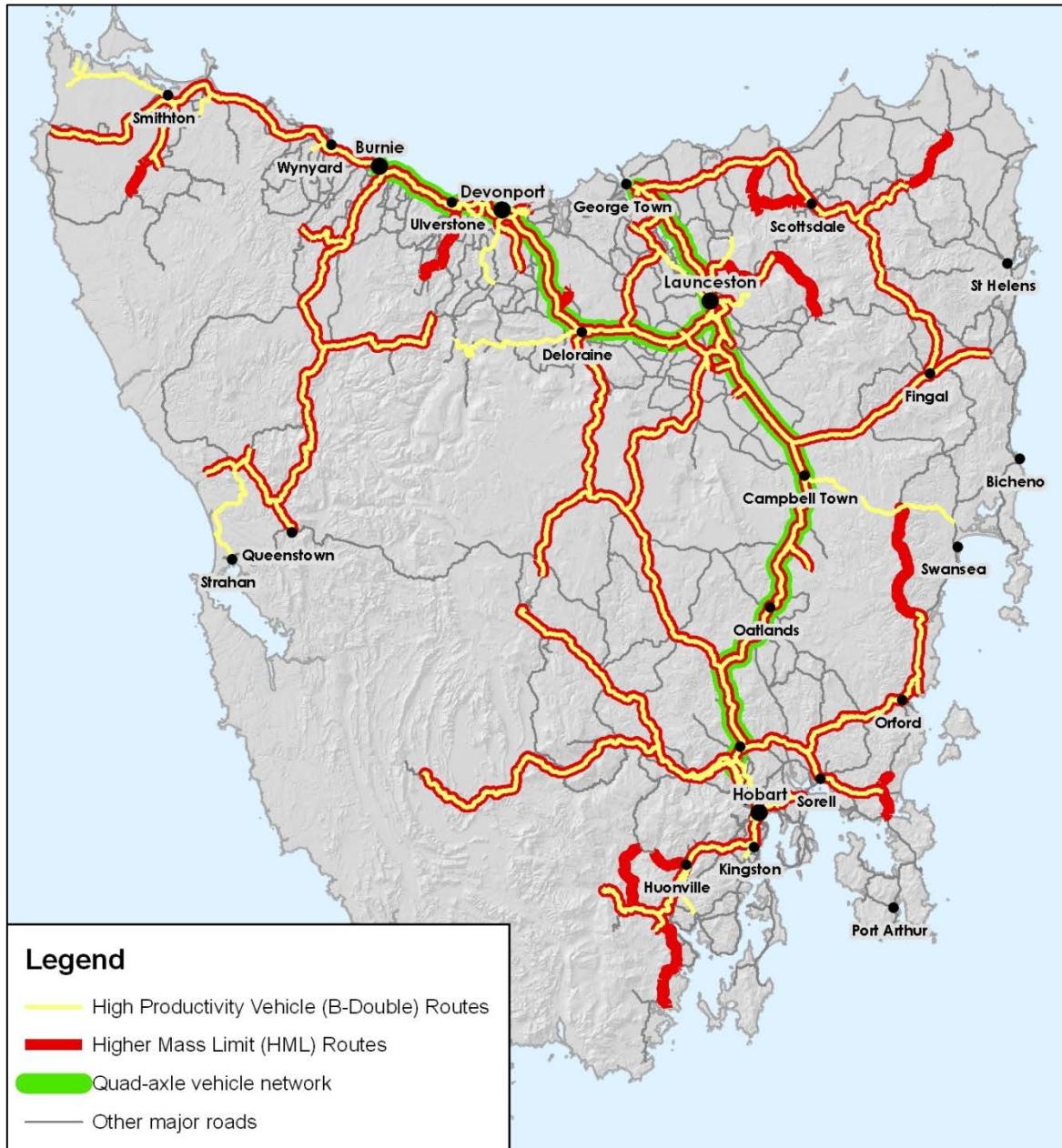


*9-axle combination*

Length up to 26m, Width 2.5m, Height 4.3m and Mass up to 68.5t

Higher Mass Limits (HML) is a nationally agreed scheme that permits approved heavy vehicles to operate with additional mass on certain types of axle groups, on a restricted road network and subject to specified conditions. HML can apply to anything from a rigid truck to a full High Productivity Vehicle combination. The maximum vehicle weight under the HML guidelines is 67 tonnes for HPV combinations and 57 tonnes for a General Access combination.

While many roads across the State allow both HPV and HML vehicles, the networks for these vehicle types are different, and if an operator requires access to both networks it is necessary to comply with both sets of operating conditions.



**Figure 26. Tasmania's higher productivity road vehicle networks**

#### Performance Based Standards

Tasmania is in the process of introducing Performance Based Standards for heavy vehicles, following the Australian Transport Council's (ATC) approval of the PBS framework in late 2007. Performance Based Standards (PBS) offer the potential for heavy vehicle operators to achieve higher productivity and safety through innovative vehicle design.

PBS focuses on how heavy vehicle behaves on the road, through a set of safety, road wear and bridge loading standards. Quad axle vehicles are assessed under the PBS vehicle assessment procedures and are required to meet all PBS safety standards and infrastructure standards except pavement vertical loading and bridge loading standards. Similarly, vehicle length limits must comply with PBS Scheme specifications. Maximum vehicle length for a heavy vehicle under the PBS or Quad Axle scheme is 26 metres – the same as for High Productivity Vehicles.

Quad axle vehicles are one example of a vehicle under the PBS Scheme. These vehicles are allowed to carry heavier loads than traditional tri-axle combinations, provided these vehicles meet safety, environmental and performance standards.

Tasmania is also in the final stages of allowing quad-axle vehicles to operate on specified roads. These vehicles are primarily designed to carry heavy containers. These vehicles are generally B-double combinations that are able to configure to carry the equivalent of two forty foot containers (30 metres in length), and will lead to higher efficiency container transport. As quad-axles are likely to be predominantly used for container movement, the quad-axle network connects the northern ports (Burnie, Devonport and Bell Bay) and Hobart.

### **Tasmania's road-rail contestable freight task**

The contestable freight task is the freight journeys that could be carried by road or rail, and road and rail service providers can compete for carriage of this freight. While it may seem attractive to move more freight via the rail system for a number of reasons, some freight tasks are not suited to being carried by rail, usually related to freight moving between places without a direct rail link, and to smaller volume freight tasks.

In considering whether to use road or rail, there are a number of considerations for freight demanders, which include:

- relative transport costs of rail and road transport
- location and capability of loading facilities
- size of the freight task
- length of the journey
- service characteristics, such as timing, frequency, quality and reliability

Tasmania's rail network carried around 8% of the state's freight task in 2008-09. It was estimated that around 3% (800 000 tonnes) of the remaining freight task is potentially contestable between road and rail. Many freight demanders don't directly choose whether to move their freight via road or rail, but pay for a door to door service with a freight logistics company. They are concerned with the overall cost of getting their goods to market and ensuring that their goods arrives at their destination on time and in

Moving the entire contestable task to rail would result in rail's mode share rising to 10.8% - slightly higher than in 2006. Rail would also comprise around 20% of overall tonne kilometres travelled across the state, if the entire contestable task moved by rail. The majority of the contestable task is between the major urban centres, Hobart and Launceston, and one of the three northern ports – Burnie, Devonport and Bell Bay.

### *Freight task*

The bulk of Tasmania's current freight task is generated by forestry and agriculture, along with construction and mining. With changes in industry structures, interstate and international markets, the freight task is likely to change significantly in the future. To better inform future planning, DIER has developed a series of forecasts of the future freight task, based on a number of scenarios for key freight generating industry sectors across Tasmania.

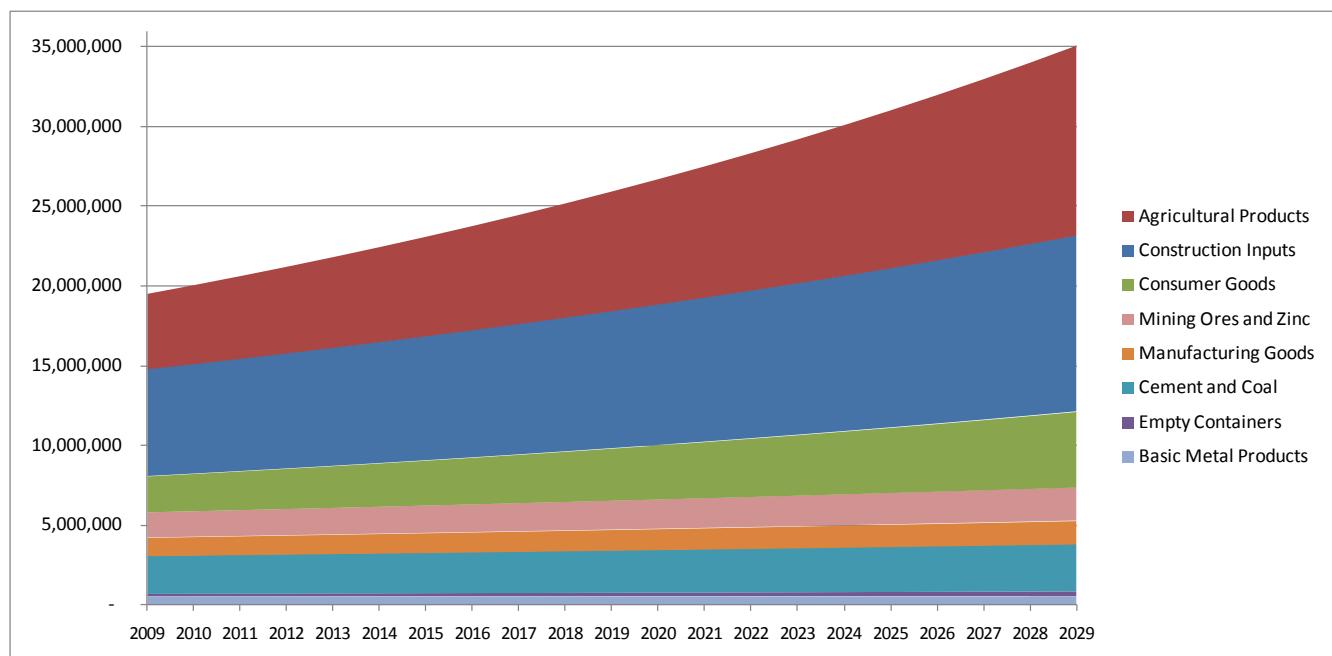
There are two primary sets of forecasts: a base scenario and a high growth scenario. The base scenario looks at the most likely scenario – growth in the freight task as expected from current expectations of future growth. The high growth scenario forecasts what the freight task would look like if industry growth is higher than currently predicted.

By 2029, Tasmania's freight task (excluding forestry) is projected to increase to over 35 million tonnes, under the base scenario. This represents an increase of around 80% over 20 years, at an annual growth rate of nearly 3%.

Commodity group	2009	2029 - Base	% increase
Construction Inputs	6,734,000	11,054,000	64%
Agricultural Products	4,734,000	11,909,000	152%
Consumer Goods	2,267,000	4,766,000	110%
Empty Containers	177,000	309,000	75%
Cement and Coal	2,377,000	2,965,000	25%
Manufacturing Goods	1,164,000	1,478,000	27%
Basic Metal Products	501,000	524,000	5%
Mining Ores and Zinc	1,569,000	2,075,000	32%
All Commodities (excluding forestry)	19,523,000	35,080,000	80%

**Figure 27. Tasmania's projected freight task 2009-2029.**

In combination, construction inputs, agricultural products and consumer goods are projected to comprise nearly 80% of the state-wide freight task in 2029. Much of this growth is in agriculture, with nearly half of the future growth in the freight task projected to come from increased production. Consumer goods are also forecast to have a large increase, but make up a relatively small proportion of the overall task. Demand for construction inputs is also expected to continue to increase, as building activity continues across the state.



**Figure 28. Tonne kilometres travelled as proportion of overall freight task, 2009-2029**

In terms of tonne kilometres travelled, agricultural inputs are projected to comprise a large proportion of the overall freight task. While other components, such as construction inputs

and consumer goods, are significant in terms of tonnage growth, agriculture makes up a large proportion of the overall freight movements, as agricultural products generally make longer freight journeys. As such, agriculture movements are likely to feature heavily in future freight growth.

### **Changes in freight task by industry sector**

Different industry sectors use the freight network differently. For example, bulk movement of raw product to processing facilities, and benefit from access to larger vehicles that can carry higher volumes per trip. On the other hand, many agricultural products are made in small quantities, and need to move to market quickly, and benefit from improved access to interstate and international markets. As such, it is important that the freight network is planned to accommodate a range of varying uses.

#### *Agriculture*

The agriculture industry in Tasmania has two major freight components – movement of product from the farm gate to processors, and movement of processed goods from processors to market. Farm gate movements are widely dispersed across Tasmania, and often peak during different seasons. Movements from processors to market are more focussed on key corridors to major ports and urban centres.

The majority of current agricultural production is in the north-west and north, and these regions are likely to expand their productive capacity and produce higher volumes of agricultural products. However, most processors are located in the north-west, and this trend is likely to continue into the future.

Most of the agriculture task moves on the road network, and as such, roads in the north and north-west are likely to experience the greatest increases in agricultural freight. These roads include:

- Bass Highway – Smithton to Illawarra Main Road
- Bridport Main Road, Frankford Main Road, Birralee Main Road and Batman Hwy – linking the north-east to processors in the north-west
- Midland Highway – moving agricultural products from southern Tasmania to the northern ports.

<b>Sector/Task</b>	<b>Area</b>	<b>Drivers</b>
<b>Agriculture: Dairy</b>	North/North east	Interstate and international demand for products
<b>Meat products</b>		Investment in irrigation infrastructure increasing amount of production
<b>Vegetables</b>		
<b>Viticulture</b>		
<b>Consumer goods</b>	Launceston	Increasing population
<b>Bulk goods</b>		Increasing consumption of goods
<b>Petroleum and other fuels</b>		Increasing industry activity (eg agriculture)
<b>Coal</b>	Fingal valley	Local demand for coal associated with manufacturing activity Potential for international export out of Bell Bay port
<b>Mineral processing</b>	North	Generally working at operational capacity International demand for commodities and competitiveness

		of Tasmanian operations determine continued operation or possible expansion
<b>Construction:</b> <b>Quarried materials</b>	Launceston/intra-regional	Increasing construction activity across Tasmania
<b>Concrete</b>		
<b>Newsprint/Paper</b>	North east	Increasing production
<b>Woodchips</b>	North	Increasing production
<b>Milled hardwood</b>	North	Increasing production
<b>Milled softwood</b>	North east to Bell Bay	Increasing production

**Figure 29. Likely growth and drivers for the Northern Region**

### Changes in the freight task on the Principal Freight Network

With the largest change in the freight task being the increase in agricultural freight, road corridors in the state's key agricultural regions experience the most significant changes in freight volumes. While there are a number of regional roads with significant increases in projected freight volumes, the key inter-regional corridors experience some of the largest increases in freight. For example, the Bass Highway is projected to nearly double its freight volumes in 2029.

While the Bass Highway has the largest projected increase in freight, other key inter-regional corridors are projected to have significant growth in freight volumes, including Midland Highway and East Tamar Highway.

Corridor name	Projected volumes	Key corridor characteristics
<b>Bass Highway:</b> <i>Burnie to Illawarra Main Road</i>	2009 – 3.56 MT to 4.39 MT 2029 – 6.59 MT to 8.62 MT	<ul style="list-style-type: none"> <li>• Inter-regional movement between north/north-west and southern Tasmania</li> <li>• Intra-regional movement within the north-west</li> <li>• Key link to northern ports for southern Tasmania</li> <li>• Mostly used for agricultural freight, consumer goods and forestry</li> </ul>
<b>Midland Highway:</b> <i>Bridgewater to Launceston</i>	2009 – 2.49 MT to 3.01 MT 2029 – 4.55 MT	<ul style="list-style-type: none"> <li>• Inter-regional movement between north/north-west and southern Tasmania</li> <li>• Key link to northern ports for southern Tasmania</li> <li>• Mostly used for consumer goods, agricultural freight and forestry</li> </ul>
<b>East Tamar Highway:</b> <i>Launceston to Bell Bay</i>	2009 – 3.25 MT 2029 – 4.53 MT	<ul style="list-style-type: none"> <li>• Inter-regional and intra-regional movement to Bell Bay port</li> <li>• Mostly used for forestry, agriculture and construction</li> </ul>

**Figure 30. Projected freight volumes on key inter-regional corridors in the Northern Region – Principal Freight Network**

Regional links on the Principal Freight Network are also projected to have a large increase in freight volumes. The Frankford-Birralee-Batman route and Bridport Main Road are forecast to have increased volumes, mostly associated with increased agricultural production.

Corridor name	Projected volumes	Key corridor characteristics
<b>Frankford-Birralee-Batman</b>	2009 – 1.69 MT 2029 – 2.64 MT	<ul style="list-style-type: none"> <li>• Inter-regional movement of agriculture freight from north-east</li> <li>• Connects north-east to north west</li> </ul>
<b>Bridport Main Road</b>	2009 – 1.39 MT 2029 – 1.85 MT	<ul style="list-style-type: none"> <li>• Intra-regional movement of forestry freight to Bell Bay area</li> <li>• Inter-regional movement of agriculture freight from north-east to north-west</li> </ul>
<b>Esk Main Road: St Marys to Midland Highway</b>	2009 – 0.62 MT 2029 – 0.96 MT	<ul style="list-style-type: none"> <li>• Movement of coal, forestry and agriculture products</li> </ul>

**Figure 31. Projected freight volumes on regional corridors in the Northern Region – Principal Freight Network**

## Ports

Ports are Tasmania's key link to international and interstate export markets. As an island state with an economy focused around exports, the performance of ports is a particularly critical part of Tasmania's transport network. There is a shipping component to most import and export freight tasks, so the reliability, capacity, efficiency and frequency of shipping services and the efficiency of port and intermodal infrastructure and operations are a significant factor in industry competitiveness. The majority of freight is moved through the northern ports, with Bell Bay historically having the largest throughput.

Both air and sea port infrastructure is adequate for the current demand, and strategic planning for the State's ports, focusing particularly on the ports of Bell Bay and Burnie, will help to determine how to best meet predicted growth in the Tasmanian freight task in the future.

The Bass Straight Passenger Vehicle Equalisation Scheme and the Tasmanian Freight Equalisation Scheme provide financial assistance to reduce transport disadvantage associated with moving goods across Bass Strait.

The *National Ports Strategy* has been developed by Infrastructure Australia and the National Transport Commission. The strategy focuses on improving the efficiency of port related freight movements. While the specific actions under the strategy relate mostly to larger ports, the themes of improved efficiency and co-ordinated planning are still relevant in Tasmania.

TasPorts developed a 10 Year Infrastructure Plan in 2011, to prioritise maintenance and renewal tasks.

The Bell Bay Intermodal Expansion Project is listed on Infrastructure Australia's priority pipeline as a project of real potential. In the short term, expansion is planned for Burnie Port, while further expansion at Bell Bay is part of the long term strategy for increasing the capacity of the northern ports. While the Ports are owned by the Tasmanian Government, customers and freight and logistics companies have a strong influence on how freight moves, whether it is moved by road or rail, and which port is used. It is important to understand how commercial decisions are made which affect the future of the Northern Ports.

#### **Port of Melbourne Corporation Port Licence Fee**

The Victorian Government legislated in February 2012 to impose a \$75 million Port Licence Fee on the Port of Melbourne Corporation. This new cost will be passed onto its customers. Tasmanian shipping provides approximately 20% of the Port of Melbourne's total revenue tonnage, meaning that Tasmanian shippers will be significantly affected by increased port fees. Given that all international freight from Tasmania now has to travel through a mainland port before leaving Australia, this is an additional cost to shippers. The Tasmanian Government has secured lower charges than were originally proposed for a number of services for the benefit of Tasmanian shippers.

#### **Australian Government Assistance Package for Tasmanian Exporters**

On 22 March 2012 the Federal Minister for Infrastructure and Transport, the Hon Anthony Albanese MP, announced that the Australian Government would provide a one-off \$20 million funding package to assist Tasmanian exporters to access their international markets.

DIER is responsible for the management and administration of the assistance package, on behalf of the Tasmanian Government.

The funding is being used to provide immediate and direct financial assistance to exporters, invest in critical infrastructure improvements and assist with longer-term strategic planning and freight logistics coordination.

\$14.5 million has been allocated to a one-off grant program – the *Tasmanian Shipping Transition Assistance Fund* - to help reduce the financial impact of increasing shipping costs for Tasmanian exporters, particularly those businesses that were directly impacted by the cessation in April 2011 of the AAA direct international container service from the Bell Bay Port.

The core objective of the Fund is to help individual companies with the costs of transition measures already undertaken and/or the implementation of strategies that will help them maintain their competitiveness in accessing international markets on an ongoing basis.

Grant payments to successful eligible applicants were progressed in October 2012.

Global trends such as larger ships and larger containers mean that it is difficult for Tasmania to continue to be serviced directly by international shipping lines. All international freight now moves through mainland ports, primarily the Port of Melbourne.

### **Sea Ports**

The Port of Launceston handled the highest overall tonnage of all ports in 2010/11 at just over 4 million tonnes (30% of the State's total freight) and is a major container and bulk goods port. It is located 48km north of Launceston at Bell Bay, on the eastern bank of the Tamar River near George Town. The port has good road and rail access from the north east and south. The Bell Bay industrial area is a key location for metal manufacturing and forestry freight processing, and the port moves significant volumes of freight associated with these industries. Recent changes to shipping arrangements at Bell Bay have resulted in a substantial decline in container movements since 2009-10.

Tasmania's container freight task has grown by 40% from 2001/02 to 2010/11. During this time, Bell Bay's container throughput has risen some years but overall has decreased by 2%. Overall, Tasmania's sea freight task has decreased by 7% during this time, while Bell Bay's total throughput decreased by 15%.

While Bell Bay Port expansion is now a longer term project, there are some works planned for areas around the port to improve safety and efficiency including:

- Bell Bay Intermodal \$9.1 million (\$5.2 million from Australian Government and \$3.92 from State Government) for improvements to hardstand at George Town rail yards and upgrading of freight road access to rail yards will improve efficiency and rail access to wharf area. This is a joint project between the Australian and State Governments, TasRail and TasPorts. The Australian Government are considering this proposal but have some concerns about the low cost benefit ratio. Approval will be required in order to commence the project.
- Bell Bay Main Road \$1 million (Community Roads Package) for traffic safety and efficiency improvements at the Mobil Road and Temco Road junctions with Bell Bay Main Road for heavy vehicles. Detailed planning and design commenced in 2011-12. Construction is scheduled to commence in 2012-13.

### **Bridport/Lady Barron Port**

Ports at Bridport and Lady Barron provide an important connection to Flinders Island. Regular freight movements are carried between these points, consisting predominantly of agricultural exports from Lady Barron, with general import items to the island. Development at Lady Barron Port valued at \$1.6million is due to start in late 2012 with work focusing on:

- Increasing the operational capacity and efficiency of port operations
- Improving the level of safety for users of the port and the adjoining facilities for segregating the public usage areas from the port operations

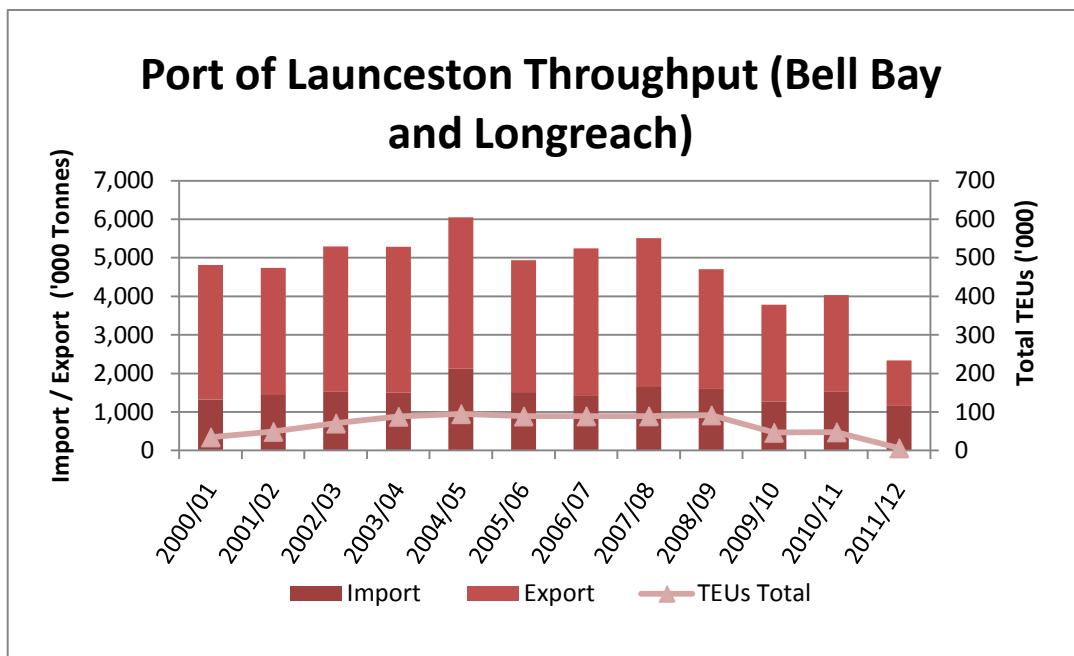
Work will include:

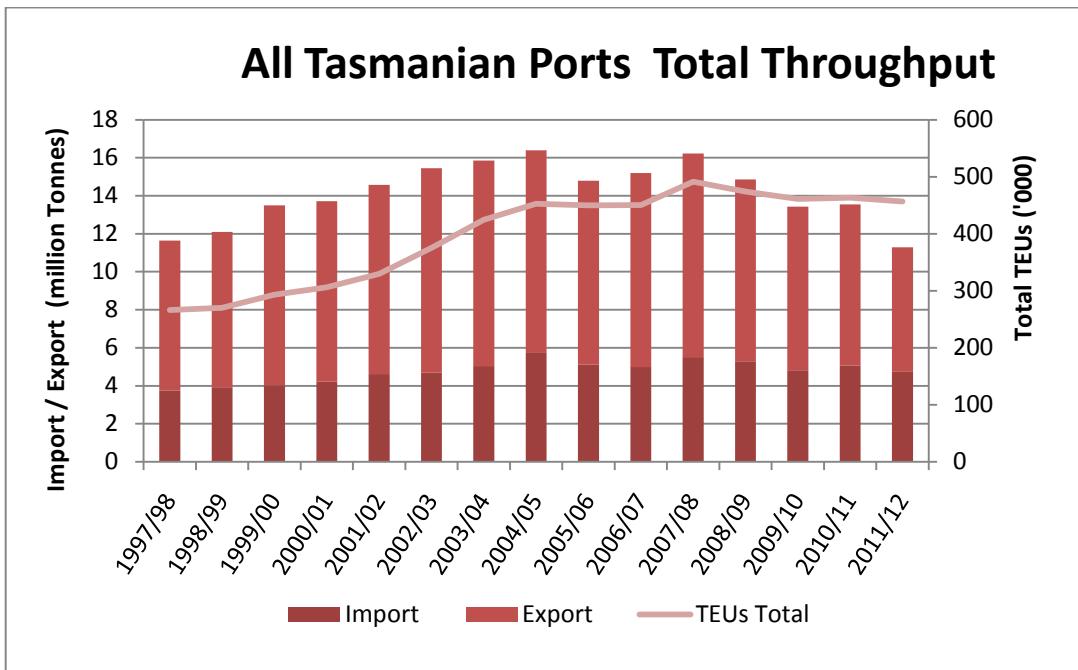
- Construction of additional sheep and cattle pens with realignment of existing stock rase and a new multi-purpose ramp
- Demolition of western fish processing building and construction of new public access road to the boat ramp

- Provision of new underground power and the installation of new fold down light poles in the port
- Provision of transit area with dedicated parking area for the public to pick up and drop off goods
- Expansion of the northern and southern marshalling/container areas

<b>Port</b>	<b>Services</b>	<b>Infrastructure</b>
<b>Bell Bay</b>	Bulk shipping services including woodchips.	Permanent access for vessels up to 170m in length and draught of 11.5m. Vessels up to 250m enter on a flood tide; longer vessels enter by agreement.
<b>Burnie</b>	Daily domestic container shipping services.  Bulk trades include mineral ores.	Road and rail infrastructure with a rail spur extending into the container yard.  Roll-on roll-off berths.  Permanent access for vessels up to 9m draught and less than 280m in length. Vessels between 9m and 11.5m draught constrained by tidal conditions.
<b>Devonport</b>	Tasmania's major passenger port with daily passenger services to Melbourne.  Bulk shipping services, including cement, livestock exports and bulk fertilizer.  Daily container services.	Spans both sides of Mersey River, creating a division of facilities. Services for container freight and passengers are located on the eastern shore; while the western shore handles bulk freight.  Dedicated berths have no tidal constraints and can accommodate vessels with a maximum 10.5m draught (12m on the eastern shore) and 235m length.

**Figure 32. Characteristics of Tasmania's key ports**





#### Shipping services

Shipping services are generally provided by the private sector on a commercial basis (excluding TT-line). However, these services form a vital link for Tasmanian businesses as they provide their only linkage to larger interstate and overseas markets.

### *Scheduled interstate and international services*

The key shipping services for most of the state's freight demanders are interstate container services, operating from Burnie and Devonport. The majority of these services go to the Port of Melbourne, and Tasmanian freight is estimated to comprise around 13% of the container trade moving through the Port of Melbourne annually.

There are no direct international container shipping services at any of Tasmania's ports. International imports and exports are all moved through interstate ports, predominantly the Port of Melbourne.

### *Bass Strait Island Shipping Arrangements*

Flinders Island has a weekly shipping service running between Lady Barron port on Flinders Island and Bridport. The Tasmanian Government provides safety net arrangements to ensure minimum levels of shipping services to Flinders Island, and also has an agreement for the provision of a monthly shipping service to Cape Barren Island with the current Flinders Island operator.

### *Airports*

The majority of freight in Tasmania moves in and out of the state by sea, but some freight is still carried by air. In particular, time sensitive freight and growing parcel mail services due to the increase in online shopping mean that air freight is still important. Launceston Airport is the main airport servicing the Northern Region, with 13,115 aircraft moving through in 2010/11. While there was substantial growth in aircraft movements of 11.3% over 2002/03 to 2007/08, growth has steadied significantly in the period following (to 0.7%). (BITRE 2011)

The airport is currently serviced by Virgin, QantasLink, JetStar and Sharp airlines with flights to Melbourne, Sydney, Brisbane and Flinders Island.

In 2012 Launceston Airport upgraded the southern apron at a cost of \$6 million, allowing for the future growth of the airport and northern Tasmania. Improvements were made to an area of 10,000 square metres, allowing for more room for larger aircraft, including two new aircraft parking bays. It will also quadruple the load limit of the apron, increasing it to 80,000 kilograms from the current 20,000 kilograms. The airport terminal was also redeveloped in 2010.

Flinders Island Airport, located near Whitemark, provides essential passenger and freight services, with connections to both Tasmania (from Launceston) and the Australian mainland (Essendon, Melbourne).

# **Freight - Industrial areas and transport**

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## **Key strategic issues**

- Need to consolidate and centralise freight nodes (including ports)
- Ongoing planning reform to better integrate land use and transport planning
- Location of industrial areas and freight generating industries in relation to major transport networks
- Use of inappropriate urban roads impacting on the amenity of residential and retail areas
- Impacts on freight task and different requirements for the freight system
- Adaptability of industry within planning frameworks

## **Background**

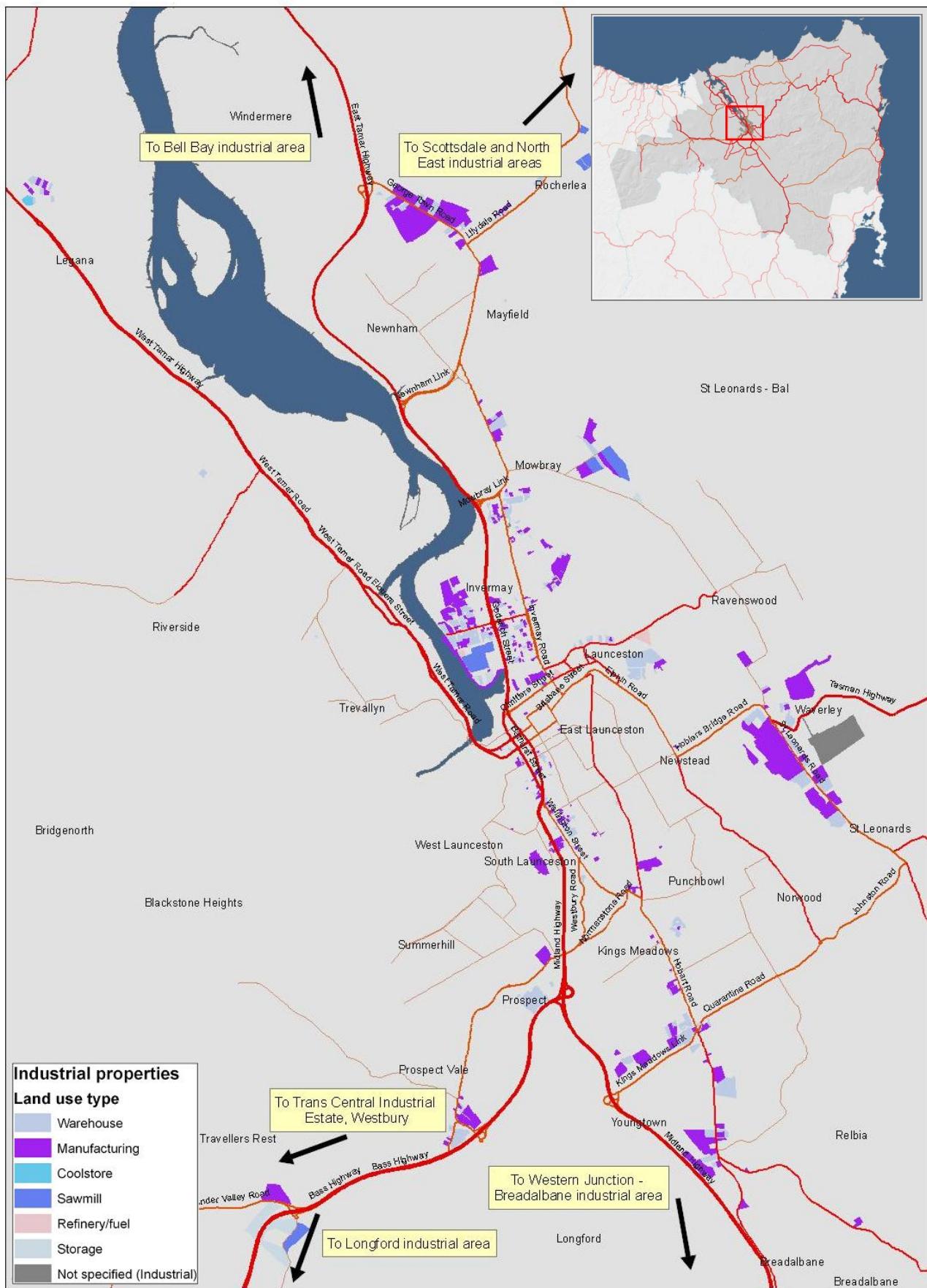
Industry is a key demand driver of Tasmania's transport system, and their location determines where and how this demand will impact on the system. Industry competitiveness is reliant on the ability to move products reliably and efficiently in a cost-effective manner to markets. The proximity of industry to suitable and accessible transport infrastructure is a critical link in the supply chain, and it is essential for land use planning to identify the most suitable locations to support this accessibility. The use of industrial estates, often consisting of numerous contiguous industry types or those with similar transport demands, and positioned to take advantage of existing or proposed infrastructure, can maximise the benefits through minimising costs without impacting the amenity, safety or additional costs imposed on areas of high residential or retail prevalence.

## **Key industrial areas in Northern Tasmania**

The economy of the northern region has a strong base in manufacturing and construction, with forestry and agriculture also playing a significant role. Types of industry and land use vary greatly across the region, with the region's key heavy industry area at Bell Bay, supported by areas of light industry and manufacturing around Launceston and a mixture of mining, forestry and agriculture in the other parts of the region (see *Figure 1*).

### *Bell Bay industrial area*

The industrial area around Bell Bay is one of the largest in Tasmania, and is also home to one of Tasmania's key sea ports. Proximity to a major port provides industry in the area with good connections to interstate and international markets for imports and exports. It is home to a number of major industries, including a major aluminium producer, a major iron producer, two operating woodchip mills and a major sawmill.



**Figure 33. Map displaying land use by industry type for the Greater Launceston area.**

Nearly 6 million tonnes of freight moved through the Bell Bay industrial area (including the port) in 2008-09. This included around 1.5 million tonnes of freight moving out of the area, with basic iron and steel, aluminium and other metallic ore making up more than 50% of these movements. As a destination for freight, the Bell Bay industrial area had 4.3 million tonnes moved into the area in 2008-09, with logs making up more than 50% of this task and ore another 20%.

The Bell Bay industrial area is quite unique, as a large proportion of the freight task associated with the industrial area moves only on roads within it. This is due to the close proximity of Bell Bay port to the industrial estate. For example, almost 600,000 tonnes of the incoming freight task was moved only within the industrial area, between the port and businesses within the industrial estate.

#### *Industrial areas around Greater Launceston*

There are a number of industrial areas around Launceston, as it is a major industry hub for northern Tasmania, and is Tasmania's second largest city.

The oldest of Launceston's industrial areas is the Invermay/Inveresk precinct near Launceston's CBD, along the southern side of the North Esk River. This area has a mix of smaller light industrial uses, including timber, roofing and engineering firms. There is a major brewery located close to this area, on the northern side of Launceston's CBD.

Due to the location of a number of construction related industries in this area, freight movements are dominated by quarried material, along with cement and premixed concrete. Beer, ale and stout, along with rough sawn and dressed timber also comprise a significant proportion of the area's freight.

Other industrial areas around Launceston include:

- Rocherlea, north of Invermay and on the outskirts of Launceston. This area predominantly has light industrial activities, and currently generates limited heavy freight movements;
- Waverley - St Leonards area, which has a large wool mill, along with a number of other businesses supporting the livestock and timber industries. This area also has some storage, warehousing and distribution businesses;
- Prospect on the western side of Launceston, which contains a major grocery wholesaler, along with a number of light industrial businesses, which generates relatively low volumes of freight;
- Legana, north-west of Launceston which has a small industrial area, mostly comprised of smaller, light industrial businesses, with some logistics companies and a cold storage facility; and
- Kings Meadows and Youngtown, on the south-eastern outskirts of Launceston, contains a number of light industrial businesses, many relating to building materials and services.

#### *Western Junction - Breadalbane area*

The commercial/industrial land between Breadalbane and Evandale generates the most significant freight volumes for the Northern Midlands district. It plays a significant role for the Greater Launceston area, due to its proximity to Launceston and access to transport

networks. Land use in the area is a mix of airport related activity (e.g. car hire) and warehousing, logistics and light industry.

Nearly 500,000 tonnes of freight moved in the Western Junction area in 2008-09. Quarried materials, logs and timber materials and mixed groceries and consumer goods were the main goods moved around this area.

#### *Longford*

This industrial area is at the northern end of the township, and includes an abattoir, brickworks and log treatment facility. Livestock, meat and meat products make up the highest percentage for freight to and from Longford, followed by quarried materials and logs/timber products.

#### *Scottsdale and the north-east*

Scottsdale was formerly a major area for processing agriculture and forestry products, but over recent years, processing facilities for these industries are now focused around Bell Bay (forestry) and north-west Tasmania (agricultural products, including potatoes and milk). However, the north-east remains a major generator of forestry and agricultural freight, due to the large areas of forest and productive farmland in the region.

#### *Westbury*

The Trans Central Industrial Estate is located on Birralee Main Road north of the Bass Highway. It contains facilities for a range of industrial processes including LNG, pharmaceutical opium, concrete, machinery fabrication and housing materials.

# Transport and safety

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## Key strategic issues

- Community concerns – heavy vehicles in urban areas, conflicts between road users (eg. freight, commuters, tourists, buses and cyclists)
- Availability of new technologies
- Difficulty achieving behavioural change with motorists
- High cost of infrastructure involved in addressing road safety

## Other issues

- Continuing to find ways to improve road safety conditions through the Tasmanian Road Safety Strategy
- Implementing safer travel speeds on Tasmanian roads, as well as increasing the number of variable speed limit signs (VSL) and electronic school speed limit signs to target high risk areas by helping to increase the awareness of motorists
- Increasing safety for young road users, through the Novice Driver Reforms, as well as continuing to investigate further safety initiatives as part of the Graduated Licensing System.

## Background

Safety should be considered in all transport decisions – whether they be engineering, design or use. The high dependence on Tasmania's State road network makes roads a central part of all transport safety initiatives – yet there are also gains to be made across other infrastructure including rail, maritime, cycling and pedestrian infrastructure.

In 2002, the Tasmanian Government demonstrated a strong desire to improve road safety standards, providing a targeted blueprint for road safety improvements over a five-year period, identifying problem areas and listing achievable strategies to address those problems. The implementation of the *Tasmanian Road Safety Strategy 2002-2006* saw a 25% decrease in serious injuries – this is in spite of a 15% increase in the number of vehicles on Tasmanian roads. The second release of the *Tasmanian Road Safety Strategy 2007-2016* is a continuation of the Government's commitment to improving road safety for all users, outlining new approaches for targeting and reducing recognised safety risks.

The analysis of crash data can highlight trends in motor vehicle crashes, creating a clear understanding of where and why crashes are occurring, and how they can best be prevented. Infrastructure improvements can be undertaken to address these issues, including flexible mid and side barriers, tactile line marking and intersection improvements. While these improvements will reduce the number and severity of motor vehicle crashes, they will also assist in reducing risks for other vulnerable road users, such as cyclists and pedestrians.

## Tasmanian Road Safety Strategy 2007-2016

The *Tasmanian Road Safety Strategy 2007-2016* represents the Tasmanian Government's commitment to improving the overall safety of the road network. The long-term vision of the Strategy is the elimination of fatalities and serious injuries caused by road crashes in Tasmania.

The Strategy is based on the Safe System approach - it accepts that drivers and riders make mistakes on the road and that crashes will occur. This approach recognises that changes need to be made to our roads and roadside environments so that if a driver does make a mistake, injury severity will be reduced and death may be prevented. The Safe System approach is based on harm minimisation principles, which seek to provide optimal ways for roads, speeds, people and vehicles to interact safely.

The Strategy contains four key Strategic Directions that have been identified through research and expert advice as the areas of focus that are most likely to target Tasmania's crash problems and to reduce the number of serious casualties on our roads:

- Safer Travel Speeds;
- Best Practice Infrastructure;
- Increased Safety for Young Road Users; and
- Enhanced Vehicle Safety.

The Strategy's supporting three year Action Plans outline a range of initiatives that will be undertaken against each of the four key strategic areas. These are initiatives that will deliver the optimum return in terms of casualty crash savings.

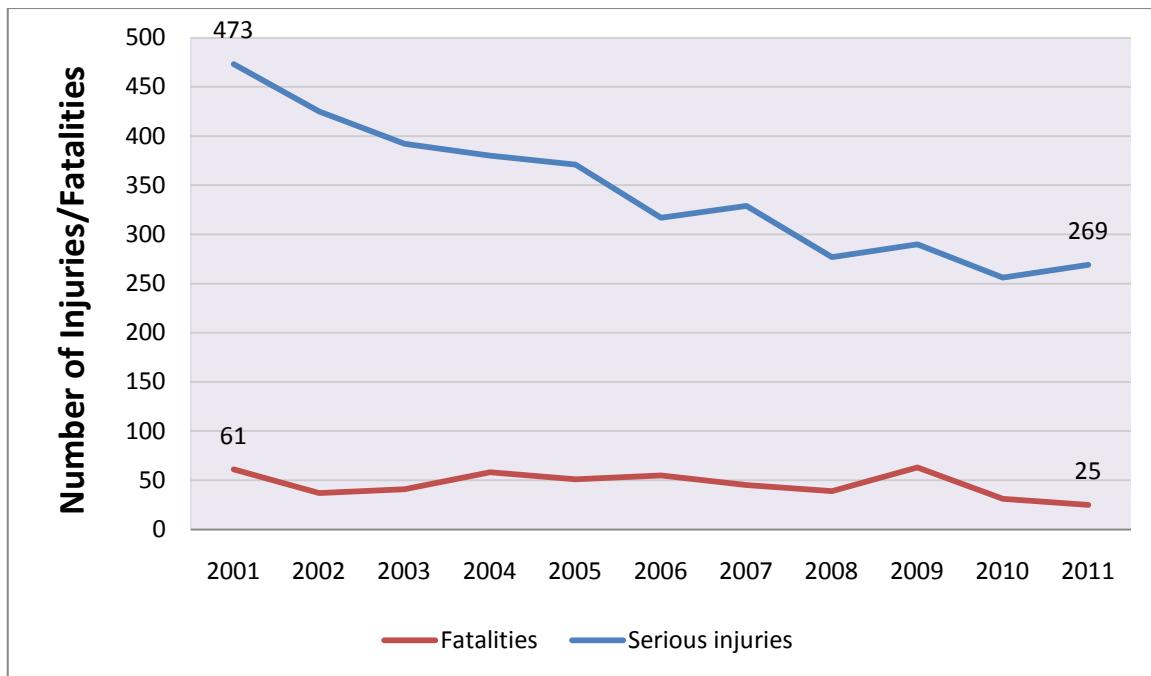
To support the implementation of the Strategy, The Tasmanian Government introduced a Road Safety Levy on 1 December 2007 to fund ongoing key initiatives. The levy is applied to the registration of all vehicles that have broad access to the road network and is expected to raise approximately \$12 million per year for road safety initiatives. The levy is a fund that is set aside and is only able to be spent on improving road safety in accordance with the Strategy. Approximately three-quarters of levy funds are allocated to best practice infrastructure projects aimed at improving the safety of the road network.

Measures introduced or underway, to support a reduction in serious casualties, include: targeted road infrastructure investment; introduction of the *Safer Roads: Non-Urban Road Network Strategy* and improved speed limit signage; roll-out of Electronic School Speed Limit signs at schools across Tasmania; investigating further changes to the Graduated Licensing System; improved Government fleet safety; design of an alcohol interlock program and point to point speed enforcement.

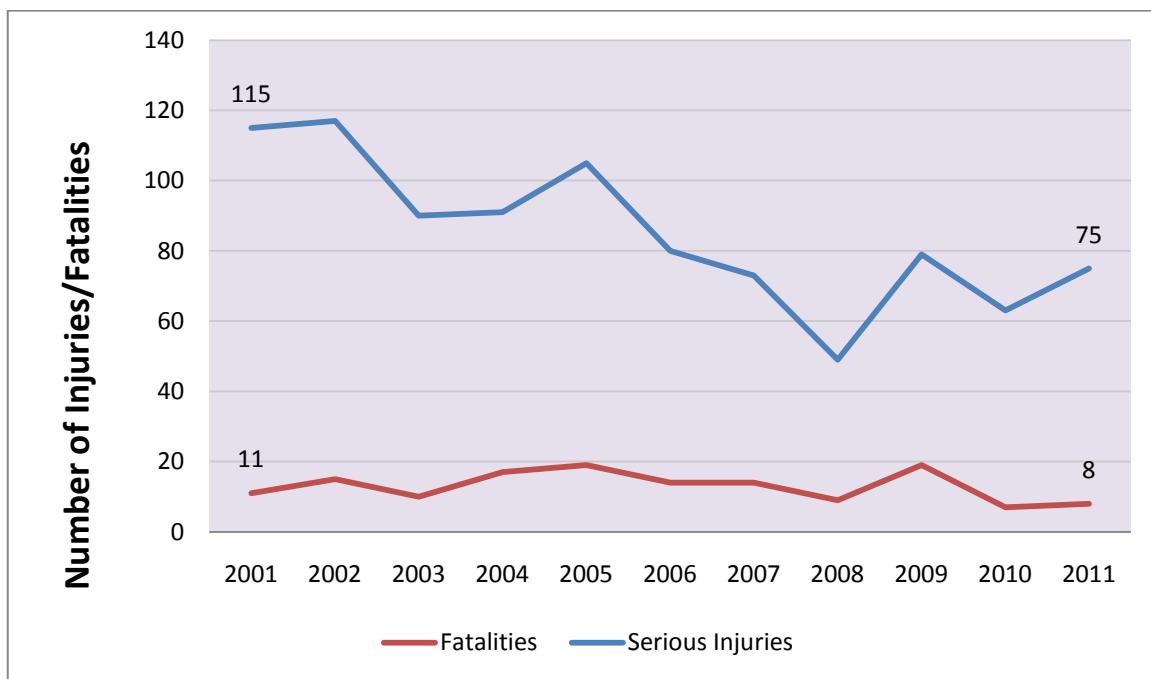
Further information regarding the Strategy and its supporting Actions Plans can be found at [http://www.transport.tas.gov.au/safety/tasmanian\\_road\\_safety\\_strategy](http://www.transport.tas.gov.au/safety/tasmanian_road_safety_strategy). Further information relating to the progress and implementation of projects under the road safety levy can be found on the Road Safety Advisory Council website at: [www.rsac.tas.gov.au](http://www.rsac.tas.gov.au).

## Data analysis

In Tasmania, serious injuries and fatalities resulting from motor vehicle crashes have been decreasing steadily (refer Figure 1). The *Tasmanian Road Safety Strategy 2007-2016* established specific targets for the reduction of serious injuries and fatalities: The first target 'by 2010: a 20% reduction in serious injuries and fatalities from 2005' has resulted in a reduction of 32.5%; current available data suggests that progress is on track to meet the 2015 target of a further 20% decrease.



**Figure 34. Motor vehicle-related injuries and fatalities in Tasmania 2001-2011.**

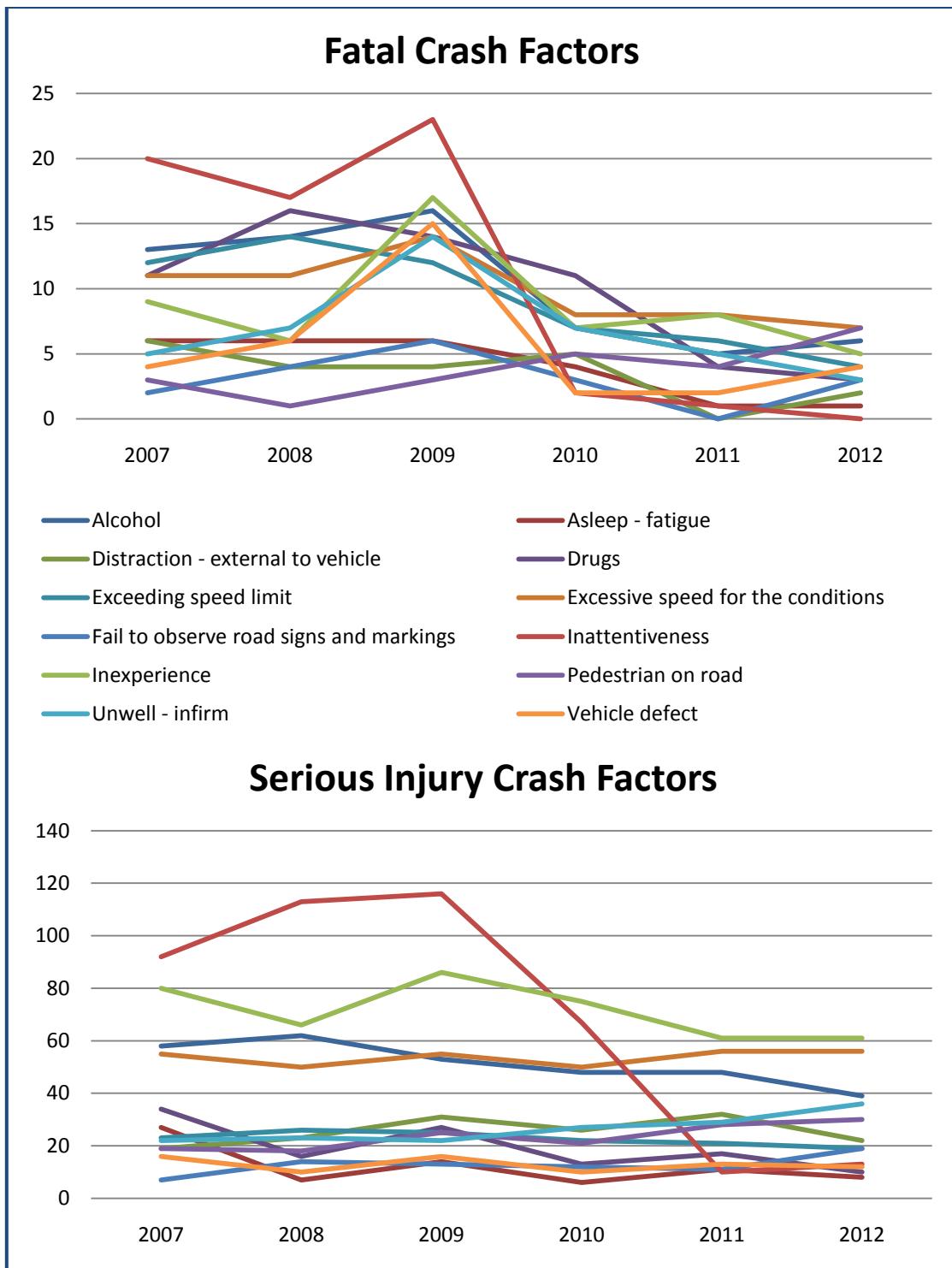


**Figure 35. Motor vehicle-related injuries and fatalities in the Northern Region 2001-2011.**

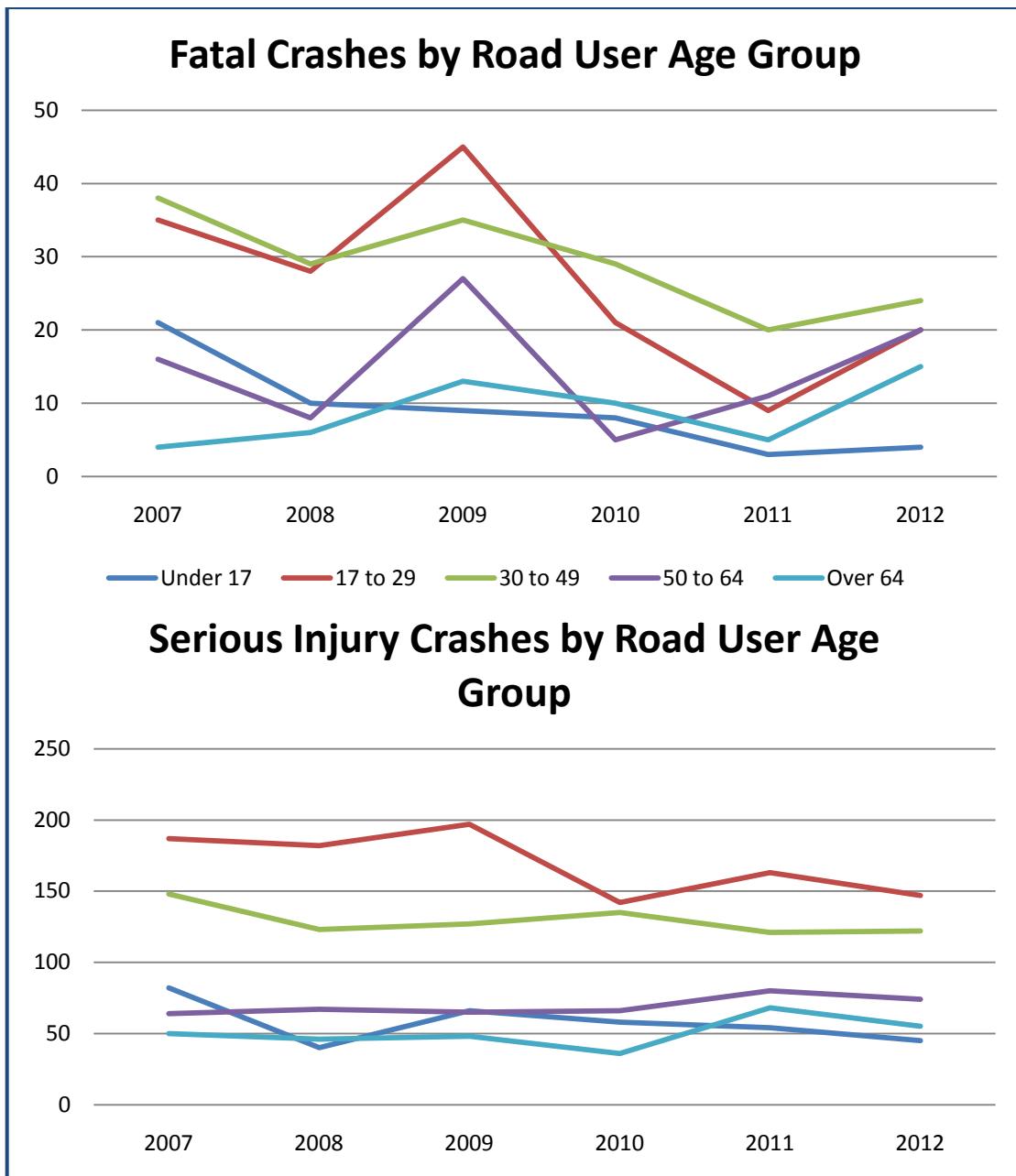
In the Northern Region, serious motor vehicle-related injuries and deaths have also continued to decline over the last ten years, and make up less than a third of the total State numbers (Figure 2). While this demonstrates the positive effects of numerous road safety initiatives and projects over the last decade, it presents a real opportunity to continue this progress to reduce road casualties even further. It is therefore important to isolate key

factors involved in transport crashes to provide more acute safety measures which tackle the root of the problem.

Inexperience and excessive speed for road conditions remain some of the main causes of serious crashes; however drugs and alcohol, distractions and failure to anticipate pedestrian activity are also strong contributors (Figure 3). Heavy campaigning on drink driving at both State and Federal levels has seen a noticeable decrease in alcohol-related deaths over the last decade (over 70% decrease for the Northern Region). Inexperienced motorists are also often younger motorists, and a number of changes have been made to implement a graduated licensing system to provide younger drivers with more experience and more confidence before gaining their full open licence.



**Figure 36. Contributing factors for fatal and serious motor vehicle-related crashes in the Northern Region 2007- 2012** (N.B. There may be more than one crash factor associated with each crash).



**Figure 37: Fatal and serious motor vehicle-related crashes by age group in the Northern Region from 2007-2012.**

### Different road users

#### Young road users

Road users between ages 17-29 represent only a small proportion of licensed drivers, yet they are over represented in crash statistics. Drivers are most vulnerable during their first six to twelve months of unsupervised driving, and most crashes are attributable to these three factors:

- Inexperience
- Immaturity
- Increased risk-taking

Based on research and best practice, the safety of Tasmania's young newly licensed drivers could be significantly improved through further strengthening of the graduated licensing system. Such measures would include:

- Increasing the number of hours of supervised driving experience during the learner phase;
- Introducing night-time driving restrictions (curfews); and
- Peer-passenger restrictions during the Provisional licence stage.

### **Older drivers**

Given the Northern region's ageing population, it will be important to focus on accommodating their driving needs, as well as their need for independence. Older drivers have considerably slower reaction times than other road users; yet despite this, the proportion of older drivers involved in crashes is noticeably low. In considering road conditions suited to older drivers, they generally prefer:

- Reduced speeds
- Good visibility
- High predictability
- Low stress conditions
- Opportunities to stop or be overtaken

In order to effectively accommodate the needs of older motorists, it will also be important to increase flexibility and capacity in public transport options to maintain their independence and accessibility.

### **Motorcyclists**

Motorcyclists are considered vulnerable users of the road network; the risk of a serious or fatal injury in the event of an accident is 34 times higher than for motor vehicle drivers and passengers.

In 2009, around 23% of all vehicular crashes involved a motorcyclist; over 60% of these were single vehicle crashes where the motorcyclist was the only person involved. Over 35% of all fatal motorcycle crashes were riders under 30 years of age. Fatal and serious injuries for motorcyclists have remained relatively static over the last ten years in Tasmania, despite a steady increase in the number of motorcyclists on the roads. There has been a decrease in the total number of serious and minor motorcyclist injuries in the Northern Region over the same period.

Acquiring a motorcycle licence is a rigorous process than for other vehicle licences; an acknowledgement of the increased level of risk motorcyclists face on the road. This process was strengthened following the *Tasmanian Motorcycle Safety Strategy 2005-2006* which resulted in the introduction of additional conditions being met before a motorcycle licence would be granted, including:

- New pre-learner and pre-provisional training courses which place a greater emphasis on adaptive thinking and hazard perception
- A minimum continuous period of 6 months for learner motorcyclists before they are eligible for their provisional licence

- An increase to the minimum age for getting a motorcycle learner licence from 16 years to 16 years and 6 months
- A power to weight scheme (Learner Approved Motorcycle Scheme i.e. LAMS) for learners and all riders in their first year after progressing from a motorcycle learner licence which replaced the 250cc maximum engine capacity restriction

The *Tasmanian Road Safety Strategy 2007-2016* has continued this focus, undertaking appropriate motorcycle safety infrastructure treatments targeting roads or routes with high motorcycle crashes or popular routes with high crash potential.

### **Non-urban roads**

Over half of all fatal road crashes occur on rural or remote roads; this is despite only a third of the population living in rural or remote areas. There are a number of distinctive factors which differentiate rural roads from urban roads, including:

- Generally higher travel speeds;
- Longer travelling distances;
- More variability in road environment and conditions, including sealing and alignments;
- Mix of vehicles, including heavy, agricultural, forestry or mining vehicles;
- Fewer mode alternatives to private vehicle travel;
- A higher proportion of single-vehicle crashes, such as run-off-road crashes; and
- Longer response times for emergency services or access to medical treatment.

### **Pedestrians**

Densely built up and busy urban environments are areas where pedestrians are most at risk. One of the key factors involved in pedestrian crashes is that other road users do not see them until it is too late, or they step out from concealed locations. Young children are at higher risk as pedestrians due to their lack of experience and skills needed to be a safe road user and therefore they should always be supervised by adults around traffic. At the other end of the spectrum, adults over 60 years of age generally experience deterioration in their eyesight and hearing, which can make it more difficult to judge distances and the speed of traffic. Also, reduced mobility may mean that it takes them longer to cross a stream of traffic.

### **Cyclists**

Cycling is both a recreational activity as well as an efficient form of transport, not to mention the health benefits attributable to increased levels of cycling, as well as the positive environmental impacts from having fewer motor vehicles on the road.

One of the major hindrances to increasing the number of cycling trips made each day lies in the perception of cycling safety. Improving the safety of cyclists on the road is a key priority of the Australian Bicycle Council's National Cycling Strategy 2011-2016.

Following on from the Launceston Cycling Infrastructure Strategy, the development of the Greater Launceston Bicycle Commuting Network, which spans the councils of West Tamar, Northern Midlands, Meander Valley and Launceston City, acknowledges the need for a region-wide approach to cycling planning and infrastructure development, and will provide safer road connections and conditions for cyclists.

## Complimentary road safety programs

There are a number of road safety programs and initiatives dedicated to improving road safety conditions, and furthering the goals of the Tasmanian Road Safety Strategy.

### Community Road Safety Partnerships

Community Road Safety Partnerships (CRSP) is a "grassroots" road safety program coordinated by the Tasmanian Government, working in Local Government to develop and implement targeted initiatives to address local road safety issues.

Through community engagement, the CRSP helps to organise planned activity, targeting high risk behaviour in key focus areas such as speeding, drink driving, inattention / distraction, safer vehicles, safety of young drivers and motorcyclist safety. To manage and plan the delivery of community road safety activities, the Government links with existing local road safety groups, Police and community liaison committees and community safety organisations.

### Black Spot Program

The Black Spot Program is a Commonwealth-funded road safety improvement program. It provides funding to target specific locations with identified crash histories to be improved by various safety treatment measures. Project proposals need to demonstrate a benefit-to-cost ratio (BCR) of at least 2:1. Road owners are responsible for nominating suitable schemes and projects which implement physical works to the site, such as the addition of traffic signals, shoulder sealing or median treatments. Around 80% of Black Spot funding is allocated to BCR schemes. The Black Spot Program also recognises that there are road locations which could be considered as 'crashes waiting to happen'. Program funds may be used to treat sites where road traffic engineers have completed a Road Safety Audit and found that remedial work is necessary. This provides the opportunity for proactive safety works to be undertaken before casualties occur and makes up around 20% of all Black Spot projects.

Since its commencement in 1996, over \$12.8 million has been allocated to fund Black Spot safety projects in Tasmania by the Commonwealth Government. A further \$1.6 million has been allocated annually through to 2018/19 to continue support for future projects.

An evaluation was undertaken in 2006 which analysed the average BCR, number of casualty crashes prevented and the reduction in casualty crash costs of 70 BCR projects. All evaluated projects had at least three years of 'after treatment' data. Some key findings of the report are as follows:

- Roundabouts yielded the best results with an average BCR of 12.7 across 15 treatment sites and an 80% reduction in casualty crashes;
- The average BCR for the evaluated schemes is 8.2 – meaning that for each \$1 invested in road safety improvements there has been an \$8 reduction in crash costs;
- The 70 evaluated Black Spot schemes are now preventing 31 casualty crashes per year; and
- By the end of 2006, the 70 schemes had already prevented 209 casualty crashes.

Examples of safety improvements in the Northern Region resulting from the implementation of Black Spot safety projects are contained in *Table 1*:

Type of Improvement	Location	Year	Annual Casualty Crash Rate
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			Before Treatment	After Treatment
<b>Roundabout</b>	Charles and Canning Streets, Launceston	1998	1.4	0.3
<b>Traffic Signals</b>	Goderich and Lindsay Streets, Launceston	1998	1.4	0.4
<b>Improved Delineation and Crash Barrier</b>	Ravenswood Road, Ravenswood	2001	1.4	0.2
<b>Improved Delineation and Crash Barrier</b>	Bridport Road, Bridport	2001	0.9	0.4
<b>Traffic Island and Kerb Extensions</b>	Cimitiere and Elizabeth Streets, George Town	1999	0.6	0.1

#### Rail Safety

**Figure 38 Examples of Black Spot safety improvements in Northern Tasmania.**  
 Regulation of rail safety in Tasmania is administered under the Rail Safety Act 2009 which commenced on 24 November 2010 and repealed the Rail Safety Act 1997. The Rail Safety Act 2009 establishes an accreditation system that ensures railway operators have the competence and capacity to manage risks to safety. The Rail Safety Regulator is an independent statutory officer charged with managing the accreditation system and ensuring compliance with the Act. The Rail Safety Regulator is supported by the Rail Safety Unit, within the Tasmanian Government Department of Infrastructure, Energy and Resources (DIER).

Across Australia, rail safety regulation is based on a co-regulatory model. Under this model, the Rail Safety Regulator does not approve or certify implementation of risk control or reduction, but has an oversight role to review and audit rail safety activities of accredited railways. Rail infrastructure managers and rolling stock operators are responsible for assessing the risks associated with their railway operations and for establishing a safety management system to identify and control these risks. There are two Rail Transport Operators which hold accreditation for the operation of trains in the Northern Region: Tasmanian Railway Pty Ltd (TasRail) and the Launceston Tramway Museum Society Inc.

Currently, the main rail network only carries freight. While the majority of the state's freight task is moved by road, rail is an important modal option for taking large volumes of commodities off the road network and away from more vulnerable users of the transport network.

While there were unfortunately two fatal rail collisions in 2010/11, there have been notable improvements made to the Tasmanian rail network in recent years:

- 50% reduction in total derailments between 2009/10 to 2010/11;
- 124 Active Level Crossings upgraded;
- Completion of the Brighton Transport Hub, providing safer loading and movements of rail freight; and
- 17 new locomotives, expected to be operational around mid 2013, will improve overall safety of train movements.

### **National Reform of Rail Safety Regulation**

In December 2009, the Council of Australian Governments (COAG) agreed to establish a single national rail safety regulator by the end of 2012. It is expected the Regulator will be established and functioning from 2013.

# Transport and the environment

## Key strategic issues

- Environmental impacts of transport and potential for greater use of alternative transport energy sources
- Impacts of extreme weather events and climate change on the transport network
- Preparedness of industry to respond to increasing climatic uncertainties and volatility
- Growing transport demand from expanding urban areas
- Encouraging the uptake of more sustainable and non-motorised forms of transport
- Promoting rail as an environmentally-friendly alternative to road use

## Background

Transport is one of the highest contributors to environmental and climate change issues – particularly through high levels of private motor vehicle usage. Increasing per capita private vehicle ownership and an increase in the number of ageing vehicles has resulted in more cars on the road and more air pollutants. There is a need to continue integrating land use with transport planning to reduce travel time and distances, reduce overall vehicle usage, and facilitate shifts to more sustainable transport modes. There are significant challenges in maintaining, adapting and planning transport infrastructure for the future impacts of climate change. Government also has an important role in minimising the impact that new and existing transport infrastructure has, along with the use of this infrastructure, on native fauna and flora.

Geographically, the Northern Region of Tasmania encompasses eight municipal areas: City of Launceston, Break O'Day, Dorset, Flinders, George Town, Meander Valley, Northern Midlands, and West Tamar. The natural landscape of the Northern Region is diverse yet balanced, ranging from rainforests to marshlands, from beaches to rocky headlands. Over 600,000ha is residual vegetation cover, being the largest land use type in the region. Agriculture and forestry make up the next two largest areas (approximately 636,000ha and 496,000ha respectively), and together these three groups make up over three-quarters of the land use; the result is a region which has maintained much of its natural heritage.

## Government approach

The Tasmanian Government manages, regulates and provides policy direction on the environmental impacts of transport through numerous Commonwealth and State policy and legislative frameworks:

**Figure 39. Government policies affecting transport and the environment**

Policies	Purpose
<b>Environment Protection and Biodiversity Conservation Act 1999</b>	The Commonwealth Government's principal environmental legislation to protect matters of national significance, which guides environmental assessment and approval processes on infrastructure projects.
<b>Tasmanian Resource Management</b>	Integrated system aiming to achieve

**Figure 39. Government policies affecting transport and the environment**

Policies	Purpose
<b>and Planning System (RMPS)</b>	sustainable outcomes from the use and development of Tasmania's natural and physical resources. This system lists common and consistent schedules across all relevant Acts.
<b>Environmental Management and Protection Control Act 1994 (EMPCA)</b>	The primary environmental protection and pollution control legislation in Tasmania, and part of the RMPS. Oversees the prevention, reduction and remediation of environmental harm, in particular from pollution and waste.
<b>Land Use Planning and Approvals Act 1993</b>	The primary planning legislation in Tasmania, and a central part of RMPS, focusing on both sustainable development and resource use during planning processes.
<b>Tasmanian Urban Passenger Transport Framework 2010</b>	Addresses urban passenger transport needs, guiding the development and delivery of transport options with a focus on economic, social and environmental sustainability.
<b>Tasmania's Action Plan to Reduce Emissions 2011</b>	An action plan outlining priority actions for the Tasmanian Government for reducing emissions and increasing energy efficiency.
<b>Tasmanian Walking and Cycling for Active Transport Strategy</b>	A key initiative under the Tasmanian Urban Passenger Transport Framework. Outlines the Government's plan for improving urban environmental conditions for pedestrians and cyclists.
<b>Tasmanian Air Quality Strategy 2006</b>	Focuses on the reduction of air particulates ( $PM_{10}$ and $PM_{25}$ ). Transport is responsible for a significant proportion of these emissions.
<b>Tasmanian Oil Price Vulnerability Study 2011</b>	A study commissioned by the Tasmanian Government to investigate the impacts world oil prices may have on the Tasmanian economy.
<b>Climate Change (State Action) Act 2008</b>	Legislative foundation for the Government's greenhouse gas emission reduction target and the establishment and review of the Tasmanian Climate Action Council.
<b>Environment Protection Policy (Air Quality) Act 2004</b>	A framework for the management and regulation of point and diffuse sources of emissions that have the potential to cause environmental harm. Developed in accordance with the EMPCA.
<b>Australian Design Rules</b>	National standards for vehicle safety, anti-theft and emissions. Covers issues including external noise, exhaust emissions and fuel-usage.

These policies and frameworks provide greater focus on reducing environmental impacts by:

- Reducing total and average distance travelled – particularly road-based;
- Increasing modal shift – to public and non-motorised transport options;

- Increased integration of transport and planning;
- Implementing technological advances – including travel demand management (TDM) and intelligent transport systems (ITS);
- Using economic and pricing incentives to influence transport mode and travel choices;
- Encouraging greater adoption of vehicle technology developments; and
- Applying land use planning processes to reduce motor vehicle dependency.

## **Environmental impacts**

Transport can have significant impacts on the environment, including greenhouse gas emissions, noise, air and water pollution, and the dislocation and mortality of native fauna and flora. These result from a variety of transport-related activities, including vehicle use, the construction of infrastructure and transport waste products. The key transport influences on the environment are:

- High, on-going private car use;
- Ageing vehicles;
- Dispersed and expanding urban settlements;
- Low use of alternative transport modes, including walking, cycling and public transport;
- Extensive transport networks, often with low volumes;
- Increasing freight task.

## **Choice of alternative transport modes**

### **Public Transport**

Public passenger services and non-motorised transport provide important alternatives to car use, going a long way to reducing the impact of transport on the environment. Census 2011 data shows that around 89.6% of households in the Northern Region garage one or more motor vehicles, with around 1 in 5 households garaging three or more. While this represents numbers only marginally higher than those for the rest of the country (88.4% and 18.7% respectively), it does reinforce the need for a continued focus on the development of both public and non-motorised forms of transport, as well as more integrated land use planning, in reducing dependency on private vehicle use. The *Tasmanian Urban Passenger Transport Framework* and the *Tasmanian Walking and Cycling for Active Transport Strategy* together detail the benefits of integrating transport and land use planning to achieve this aim. By planning for improved convenience and increased accessibility to desired locations by means of active transport (walking and cycling) and public transport, this can result in a decreased need for car travel, and consequently a decrease in the total travel time required.

Tasmania has a bus-based urban public transport system, with limited services in rural and regional areas. In 2010-11, 10.55 million trips were made on Metro bus services in Tasmania; 1.94 million of these were for Greater Launceston. Additional bus services are scheduled through major regional centres within the Region by private bus operators.

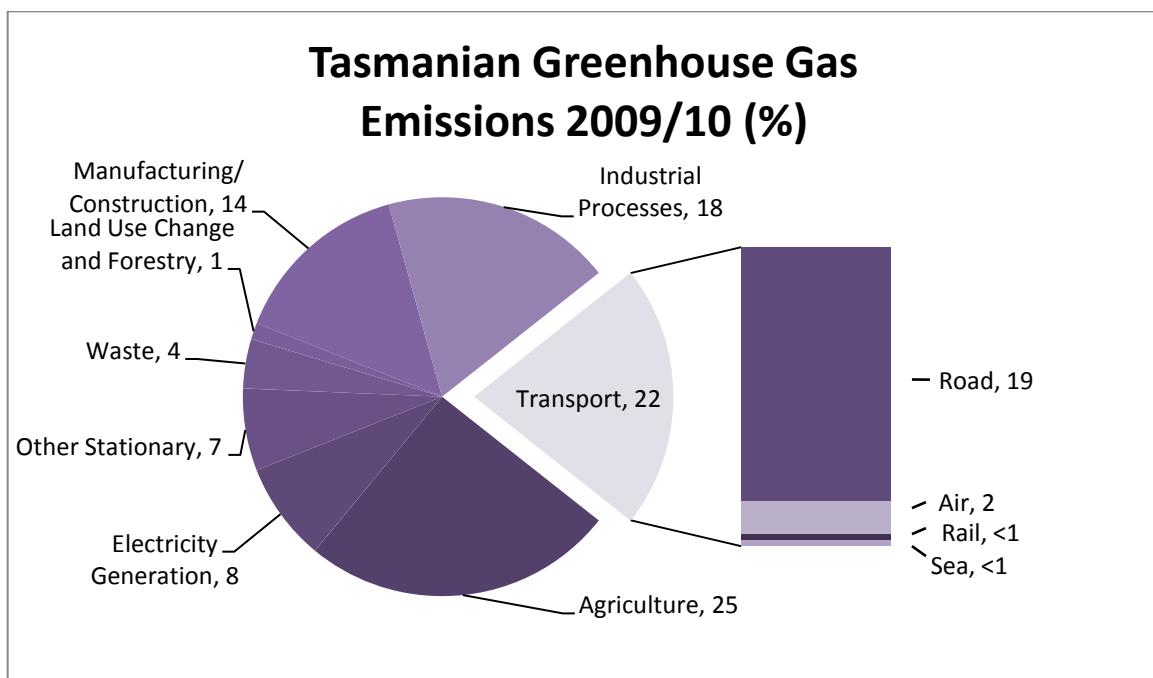
### **Rail Network**

Government investment into improving the safety and efficiency of the rail network in Tasmania is ensuring that rail remains a viable alternative to freighting goods by road. Analysis suggests that rail is up to three times more fuel efficient and generates less noise, air- and water-borne pollutants than road transport alternatives. The recent purchase of 17

new locomotives – the first of which will become active from mid 2013 – will further enhance the environmental efficiency of the rail network.

### Air pollution and greenhouse gas emissions

Motor vehicles are the primary source of five of the six major air pollutants: carbon monoxide, nitrogen dioxide, ozone, lead and particulates. The age and condition of a vehicle, along with frequent stop-start traffic conditions, plays a significant role in the levels of greenhouse gas emissions produced. Tasmania has the oldest fleet of motor vehicles in the country: In 2011, around 56% of passenger vehicles in the Region were over 10 years of age, with nearly a third over 15 years. Significant technological advances into cleaner vehicle emissions has occurred over the last decade; a lack in uptake of this technology, seen through the number of older vehicles still on Tasmanian roads, has resulted in a continual rise in transport-produced emissions, with transport responsible for a fifth of the State's total greenhouse gas emissions.



**Figure 40. Total greenhouse gas emissions for Tasmania, 2009/10.** Source: State and Territory Greenhouse Gas Inventories 2009/10.

### Oil price vulnerability

An independent study was commissioned by the Tasmanian Government into the vulnerability of the Tasmanian economy to world oil price variability. It acknowledges that an increase in the price of oil will shift through the economy via increases in the prices of fuel and transport margins, but that the Tasmanian economy is considerably well-structured to respond. Nonetheless, it will have noticeable impacts on the costs of using transport – for the movement of both freight and people – highlighting the continuing importance for increasing a shift from fuel-intensive to more sustainable methods of transportation.

### Noise pollution

The emission of noise that unreasonably interferes with, or is likely to unreasonably interfere with, a person's enjoyment of the environment is defined in EMPCA as 'environmental nuisance.' While overall traffic volumes remain low in Tasmania, they are

growing with steady increases to both total and average distances travelled. As traffic volumes have increased, both the number of individuals potentially affected by transport-related noise and the complexity of addressing transport noise issues have increased.

Some noise-related transport issues include:

- An extensive, substantially mature road network.
- Historic and continued development of residential areas along key transport corridors.
- Location of major freight routes through urban areas, including the East Tamar Highway, Frankford-Birralee-Batman corridor, and Wellington-Bathurst couplet.
- Location of industrial areas in or adjacent to urban areas.
- An ageing vehicle fleet – Tasmania has one of the oldest vehicle fleets in Australia – resulting in generally noisier cars.

Minimising road noise is a complex, costly and challenging process. Many of Tasmania's strategic roads are located in built-up areas, where both the road network and adjacent land uses are established but largely incompatible. By identifying roads that will take higher volumes of general traffic or higher volumes of freight according to a strategic hierarchy, the State Road Network prioritises roads that are likely to have higher noise levels, such as corridors and arterial roads, within future and existing urban arrangements.

The State Road Noise Strategy, released in June 2011 by DIER, provides a framework to better understand and reduce community exposure to transport-related noise through high-level policy and planning guidance on the impacts of road noise and strategies for ameliorating increasing levels of noise exposure.

## Land use and development

Industries that rely directly on the natural environment make up a significant component of the Northern Region's economy. The Regional Land Use Strategy of Northern Tasmania outlines the importance of planning future developments that are consistent with the environmental integrity of the Region's landscape and resources. Yet, it also acknowledges that sustainable development and environmental resilience are the cornerstones of human health, social equity and the overall sense of liveability: ongoing environmental consideration through better integration of land use planning with the transport network can improve each of these aspects of human society.

Key objectives for addressing environmental issues through land use planning can be summarised as:

- Considering the potential impacts of climate change on current land use and future development;
- Locating new development in appropriate areas to manage noise and environmental impacts;
- The need for design that supports and encourages increasing levels of walking and cycling;
- Ensuring adequate transport options and accessibility for low socioeconomic areas;
- Planning for more contained urban areas; and
- Continue developing technological improvements, such as travel demand modelling and Intelligent Transport Systems (ITS).

The outcomes of these objectives will be to:

- Encourage the uptake of more efficient and accessible public transport facilitation;
- Provide greater connectivity between residential areas and destinations of daily activities, such as employment, schools, shopping and services;
- Reduce the necessary length of motor vehicle trips, providing more opportunity for trips to be undertaken by walking, cycling and public transport; and
- Employ more technology to improve the efficiency and capacity of current infrastructure.

## Fauna and flora

The use and development of transport infrastructure can have significant impacts on Tasmania's fauna and flora communities. These impacts can include:

- **Roadside vegetation and habitat fragmentation** – The expansion of the road network can generate fragmentation in otherwise undisturbed environments. The preservation of remnant vegetation alongside road and rail corridors can be pivotal in maintaining habitat connectivity for vulnerable terrestrial and arboreal fauna, as well as in providing buffers for native plants and grasses.
- **Wildlife and roadkill** – Tasmania sadly has a high incident rate of roadkill, in line with its high proportion of natural environmental settings. Measures to mitigate a significant amount of roadkill can include identifying high-risk areas and effecting changes in driving behaviours.
- **Spread of weeds and invasive species** – Transport corridors are also corridors for the spread of invasive plants and animals. Vehicle movements further compound this problem by transmitting and relocating seeds and pollen over vast distances in very short periods of time. Quarantine is also of considerable focus given the geographic isolation of Tasmania as an island state.
- **Run-off** – Roads accumulate nutrients and heavy metals that are washed into waterways following rain, causing pollution and possible eutrophication of waterways.

The environmental impacts of roads are considered in the design and implementation phases of all road projects. Where possible, road design is modified to minimise or mitigate impacts to known environmental values, and offsets are applied as needed. DIER maintains a road information database system (RIMS) which identifies locations of significant environmental value within the State Road network, and this is used in conjunction with detailed environmental specifications and standards which ensure the highest level of environmental compliance in the development of road infrastructure and works.

## Climate Change

While Tasmania will be better positioned to weather the effects of climate change, it will not remain completely immune. Expected increases in extreme rainfall events, sea level rise and higher temperatures will all impact on Tasmania's transport infrastructure and the communities it connects. Ongoing maintenance and planning for climate change adaptation can reduce the strain on road, rail and bridge infrastructure to keep Tasmanians moving. Adaptation for many of the impacts of climate change are already accounted for in the planning and maintenance of transport infrastructure, and the Tasmanian Climate Change Office is currently developing detailed analysis of the future direction Government should take towards climate change adaptation.

Transport, communications, energy, water, emergency services and social infrastructure (such as schools and hospitals) are vulnerable to the long-term impacts of climate change. With 75 per cent of the population currently living in coastal areas, Tasmanian settlements are vulnerable to both current and future risks including the impacts of storm surge, coastal erosion and sea level rise. Extreme rainfall events and associated flash flooding, which are predicted to increase in frequency and intensity with climate change, may cause significant damage to bridge and road infrastructure. Roads and rail networks may also be threatened by higher temperatures, which may damage bitumen or buckle railway lines.

The Tasmanian Coastal Adaptation Decision Pathways (TCAP) project, lead by the Tasmanian Climate Change Office, aims to tackle some of these difficulties and significantly improve the ability of Tasmanian communities and decision-makers to adapt to climate change. The project explores the types of realistic options available to councils and communities when tackling the localised effects of climate change, and to then plan and respond appropriately to likely future scenarios in their area. St. Helens, in Break O'Day Council, has been one of four focus areas for the project. The project will use climate change and coastal hazard risk assessments, along with hazard mapping currently underway. These assessments will factor in local differences and run through a process that will give the participating communities and government some realistic options for action with an indication of likely costs.

DIER has used climate modelled data to inform specifications for the design of five bridges in the Mathinna/Evercreech area of Northern Tasmania. This project stemmed from key outcomes of the North East Freight Strategy and was the first time DIER has used climate modelling data to inform infrastructure design and implementation. This approach is likely to become common practice for adapting new infrastructure developments and upgrades to the possible future impacts of climate change.

# Transport and tourism

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## Key strategic issues

- Potential for increased tourism through promotion of region's liveability
- Supporting safe travel for tourists both into and within the Region
- Air access to the Region, and within (particularly Flinders Island)
- Availability of information on tourist needs and movements
- Difficulties for international tourists being unfamiliar with our transport system and road rules
- Providing tourists with a positive transport experience

## Background

Tasmania's tourism industry is reliant on good quality transport infrastructure and services – including networks, and air and sea linkages. The needs and use of the network by tourists are different to those of local residents: Use varies depending on visitor type, transport mode and seasonal variation, and requires direct linkages to key tourist locations.

While tourists make up only a small proportion of total transport volumes, they add a significant contribution to the Region's economy, making it important to plan and cater for tourist access to the Region, and safe movements within the Region. The assessment of the overall worth of the tourism industry is generally measured through economic performance fuelled by the expenditure of visitors across all origins – domestic and international – and for all purposes of travel, including Tasmanians moving around their own state. In 2011, \$1.46 billion was spent by interstate and international visitors coming to Tasmania, making up around 5% of Gross State Product and around 11% of state employment.

## Transport and access

The Northern Region's transport network provides essential linkages for tourists and visitors by providing a good standard of access to the region, and ensuring journeys are safe, timely and simple to navigate. This is achieved by focusing on:

- Maintaining a good standard of interstate air access to the Region;
- Maintaining safety across the system (system consistency), safety at airports and on the road network (signage and rest-points);
- Providing appropriate (standard) linkages to key locations, such as attractions, accommodation, dining, and natural or heritage activities; and
- Greater information on transport options to tourist attractions, accommodation and supporting facilities.

Interstate visitors can access the Northern Region in a number of different ways. Launceston Airport connects to most major cities in Australia, providing direct access to and from the Region. Total passengers moving through Launceston Airport has been steadily increasing at an average rate of 8.3% over the last ten years, with 1,156,356 passengers moving through the airport in 2010/11; in 2011 around 34% of all air-travelling visitors in Tasmania moved through Launceston Airport. Launceston Airport underwent an expansion in late 2009, doubling the terminal size and upgrading gate lounges, screening and baggage facilities up to Commonwealth standards. The airport is serviced by QANTAS (and subsidiary JetStar).

Virgin Australia, Airlines of Tasmania and Sharp Airlines. Sharp Airlines provides frequent flights between Flinders Island Airport and both Launceston and Melbourne.

Significant numbers of visitors to the North come by road via either the Southern or North-West Regions, via Hobart International Airport, or the *Spirit of Tasmania* ferry operating between Devonport and Melbourne. Road-based travel – and car-use in particular – is the most popular form of transport for visitors within the Region: up to 82% of all tourist travel within the Region being made by car. Regional bus services also provide important intrastate linkages servicing major regional towns.

Many of the Region's tourist attractions lie outside of the major urban centre of Launceston. While distances are often shorter and destinations closer than most travel on the mainland, Tasmanian roads can be hazardous and unforgiving to unfamiliar road users. Many of Tasmania's regional roads involve winding, mountainous climbs and descents, and are highly subject to changes in local weather conditions. These factors can affect travel times, making journeys which may look short on a map, take significantly longer than planned. It is important that the ongoing promotion for travellers to drive according to the road conditions be continually displayed at port terminals and tourist locations to encourage caution by visitors when holidaying along the State's roads.

Cycling has seen significant growth throughout the Northern Region – both for utility and recreational purposes. There is an increasing focus on the capacity to expand cycling infrastructure through urban and regional areas in the North, as well as establishing specific cycling 'trails' – both on- and off-road – and this is becoming increasingly popular with visitors. Cycling events, such as the Opperman Gran Fondo, are also contributing to establishing Northern Tasmania as an internationally recognised cycling destination.

## Visitor numbers

The total number of interstate visitors to the Northern Region has remained relatively steady in recent years, showing signs of increasing as Tasmania's overall tourism market improves. In 2011, the total number of visitors to Tasmania was 745,800, with 524,600 of these visiting the Northern Region. 26% of all interstate visitors to the Region were from Melbourne, followed by around 18% from Sydney.

Tourism research has shown that the total number of nights visitors are spending in Tasmania is decreasing. In 2011, around 490,000 visitors stayed overnight at destinations in the Northern Region, down 2% since 2008, with most visiting as part of a larger touring holiday (1-3 weeks) encompassing other regions of the State. These indications will have noticeable implications for the road network: visitors who stay for shorter periods or are covering more destinations in one holiday tend to focus more on key activities and attractions, often with pre-planned itineraries. This highlights the ongoing importance of a safe and efficient road network, high quality signage, and the concentration of commercial tourist activities in highly accessible 'clusters'. Recent surveys suggest that the natural setting, quality accommodation, activities which focus on culture and heritage, and the availability of online information are the Region's strongest points.

## Regional Tourism

Tourism activities in the Northern Region include a diverse range of settings and themes, many of which are 'experience' based. These experiences are marketed through various

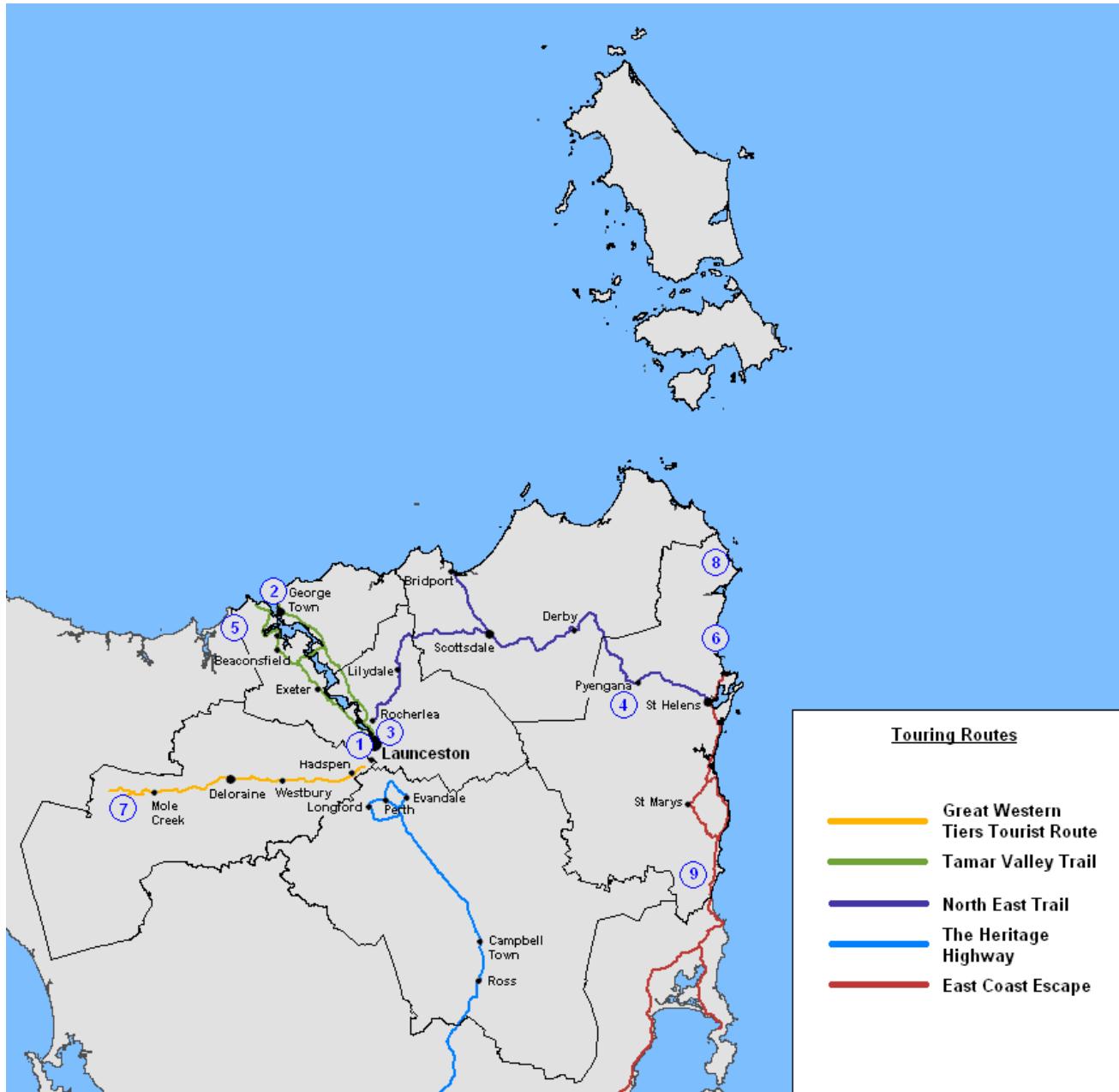
trails, multiple-day itineraries and focal points (see Map 1 below). Trails in the Northern Region include:

- Tamar Valley Trail
- North East Trail
- Great Western Tiers Tourist Route
- Heritage Highway
- East Coast Escape

*Tourism Tasmania* produces 7-day itineraries, detailing pre-planned routes identifying key attraction ‘clusters’ across the Region, where locations in close proximity can be visited consecutively. Cataract Gorge, in Launceston, is one of the most popular tourist attractions in the Region, along with the award-winning Bay of Fires near St Helens. Further examples of popular destinations in the Northern Region are listed in *Table 1*:

<b>Attraction</b>	<b>Total visitors in 2011</b>
1 Cataract Gorge	176,700
2 Beaconsfield Mine and Heritage Centre	37,000
3 Low Head Pilot Station	30,800
4 Queen Victoria Museum and Art Gallery	16,800
5 St Columba Falls	34,800
6 Narawntapu National Park	13,700
7 Bay of Fires	170,000
8 Mole Creek Caves	30,800
9 Mt William National Park	18,300
10 Douglas Apsley National Park	17,700

**Figure 41.** Selection of notable tourist attractions in the Northern Region with total visitations in 2011 (numbering corresponds with **Figure 42 (overpage)**).



**Figure 42. Map of Northern Tasmania, displaying trails and locations of attractions listed in Figure 41.**

### Tourism Organisations

There are a number of organisations which help to market Tasmania and the Northern Region in particular as a tourist destination. These organisations work in conjunction with Local Government, private sector and State Government to ensure that infrastructure and development supports and encourages tourism in the region. A new Regional Tourism Organisation (RTO) has been established for the North, which will assist the development of a new regional cooperative tourism marketing program for the Northern Region.

## **Tourism and land use planning**

Tourists are important users of the Region's transport network. Travel varies by visitor type, transport mode and is spread unevenly across seasons and throughout the day.

In order to meet the transport needs of tourists, it is important to:

- Understand tourist movements into and within the Region;
- Understand the needs of specific modes;
- Maintain visible, appropriate and up-to-date signage of key attractions; and
- Appreciate the seasonal variations influencing network usage and traffic volumes.

Improved understanding of the nature and range of tourist movements in Tasmania would be beneficial to both transport and tourism planning. Further research and coordination in this area would create a better understanding of the relative mix of tourist versus private or commercial traffic along a given road corridor, and inform planning that incorporates the needs of different transport users in relation to supporting infrastructure (for example, signage, roadside lookouts and rest areas).

Tourism planning considerations relate to both on-road conditions and supporting off-road infrastructure. Passenger transport linkages between key locations, including air and seaports with major townships, are also important. The location of activities and attractions to complement and capitalise on touring routes and the road network benefits both private enterprise and government.

The transport and infrastructure requirements of tourists should be met at a strategic level in consideration of the range of factors that inform infrastructure planning – including safety, major users of road corridors, current and future traffic volumes, total tourist volumes, and budgetary constraints. Solutions are likely to be contextual and should focus on complementary infrastructure and non-infrastructure solutions. For example, the newly implemented Tiger Bus routes provide free travel for both residents and visitors travel around the Launceston City Centre and to key attractions, such as the Cataract Gorge.

## **Touring styles**

### **Self-drive tourism**

Self-drive tourism is one of the State's main touring methods. The attractiveness of both Tasmania, and the Region, as a touring destination reflects the relatively short driving distances, wide distribution of towns and attractions which can be reached in one day, and the high standard and range in both hotel and 'bed and breakfast' accommodation available. Privately-owned or rental vehicles also provide tourists with freedom and spontaneity in their holiday planning.

### **Camping and caravanning**

Unlike most tourist accommodations, caravan, campgrounds and holiday parks are most often located outside major urban centres. This form of accommodation supplies almost half of all commercial accommodation for the Northern Region outside of Launceston; tourists of this type tend to stay twice as long as other tourist types.

Caravan and campervan tourists have greater flexibility in their overnight travel arrangements, and do not necessarily require staying in established accommodation parks.

Each local government has its own method for managing ‘free camping’ and roadside camping, in which motor homes and campervans make use of roadsides, car parks, public camping grounds and other public places. Some local governments provide designated areas for campervans and motor homes to stop overnight. Examples include the Scottsdale Rest Area off the Tasman Highway at Scottsdale, and the Conara Rest Area along the Midland Highway to the north of Campbell Town. A coordinated approach to the provision of facilities for campervans and motor homes is required within the region to help improve visitors’ experiences and maintain the integrity of transport infrastructure and the environment for the enjoyment of other road users.

### Cycling

While still only a small proportion of visitors to the Northern Region use cycling as a mode of transport, it is growing in popularity. In particular, the Northern Region’s many natural attractions are becoming popular with mountain bikers, and a number of trails have been developed around the region which take advantage of this.

While there may not be a large number of people using their bikes to get to work, cycling is growing in popularity, and the Northern Region is well-serviced with infrastructure and information to assist people to access the region via mountain bike. Recent studies recognise that one of the primary motivators for visitors to Northern Tasmania is nature based experiences, and cycling/mountain biking trails often take advantage of the natural beauty of the region.

In 2011, a report prepared for Northern Tasmania Development investigated the tourism potential of the mountain bike market within Northern Tasmania. Mountain bike infrastructure development within the northern region includes:

- Mountain bike authorised trails within Launceston City, with the majority occurring in Trevallyn and Kate Reed Nature Recreation Areas;
- Recent formalisation of access for mountain bike riders to Trevallyn and Kate Reed Nature Recreation Areas via the track strategy process (including shared use and ‘mountain bike preferred’ trails), including plans to further develop/upgrade mountain bike opportunities, and implement classification and signage systems relevant to riders;
- Significant mountain bike trail developments being undertaken including the recent work by Forestry Tasmania at the Blue Tier;
- Launceston City Council developing dirt jump parks, including the preparation and implementation of planning, construction and maintenance guidelines;
- A significant amount of trail infrastructure on private land, with access negotiated by the LMBC, and trails constructed by volunteers (private venues are generally only available for use during club events);
- A number of locations within close proximity to the city, that have started to develop mountain bike infrastructure or have plans for further development (e.g. Hollybank area).

There are a number of mountain biking trails and riding areas in the Northern Region including:

- Wyena/Lilydale
- Hollybank Forest Reserve and surrounding State Forest

- Blue Tier Trails
- Four Springs Area
- Trevallyn Nature Recreation Area
- Kate Reed Nature Recreation Area
- Ben Lomond Area
- Ravenswood Tracks
- Youngtown Regional Park trails
- Heritage Forest Dirt Jump Park
- Craggy Peaks Resort and surrounding trails
- Greens Beach – Badger Head – Bakers Beach
- Humbug Point Nature Recreation Area
- St Helens Point Conservation Area
- Scamander State Forest
- Friendly Beaches/Coles Bay Area
- Windsor Park Dirt Jump Park
- Legana Dirt jump Park

There are a number of local cycling groups within the region which also promote routes and maps for on-road cycling. The Great Western Tier Cycling Tour is one example which includes a series of road-based cycling trails mapped and identified for their ‘rideability’ and scenic experiences. Further to these, the prominence of cycling events in the region also continues to grow, with increasing numbers of cyclists participating in annual events such as the Opperman Gran Fondo and the Western Tiers Cycle Challenge.

### **Signage**

The Tasmanian Tourism Signing Guidelines were introduced in January 2000 as part of an integrated approach to the dissemination of visitor information, including signage. Now incorporated as part of the Tasmanian Road Signs Manual, the Manual aims to develop consistent signage types across Tasmania, with a particular focus on the form and style of tourist signage. Various design principles are incorporated including guidelines for indicating historic, natural or cultural tourist attractions. The Manual provides guidance for State and local governments responsible for the approval or administration of signs, along with tourist operators who are responsible for the upkeep and accuracy of the signs they produce.

# Socio-economic profile

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## Key strategic issues

- Ageing population and decreasing household sizes
- Maintaining economic growth with low population growth
- Industry restructuring and impacts on employment

## Background

The transport system plays an important role in the quality of life of people living in Northern Tasmania. People use the transport system every day as passengers, as well as consumers of goods which are transported via road, rail, air and sea. Transport planning decisions affect people in a number of different ways, including their wellbeing and ability to access goods and services.

Understanding the population within the region, how it has changed and is likely to change in the future, assists in understanding the likely needs of the population and informs transport planning.

Demographic information for the Northern Region is predominantly sourced from the Australian Bureau of Statistics – particularly the Census, which is conducted every 5 years.

## Overview

The Northern Region is made up of 8 Local Government Areas: Break O'Day, Dorset, Flinders, George Town, Launceston, Meander Valley, Northern Midlands, and West Tamar. It covers a total area of approximately two million hectares, or around 29% of Tasmania's total land area.

Much of the population and commercial activity is focused in the urban centre of Launceston and the surrounding townships of Longford, Legana, Perth, Hadspen and Westbury. The area known as "Greater Launceston" is defined by the ABS as including Launceston and the closest parts of the surrounding LGAs of George Town, Meander Valley, Northern Midlands and West Tamar. Other population and commercial centres for the Region include Beaconsfield, Beauty Point, Bridport, Deloraine, Lady Barron, Scottsdale, St Helens and Whitemark. Concentration of industrial and maritime activity has been centred in George Town, around the port of Bell Bay.

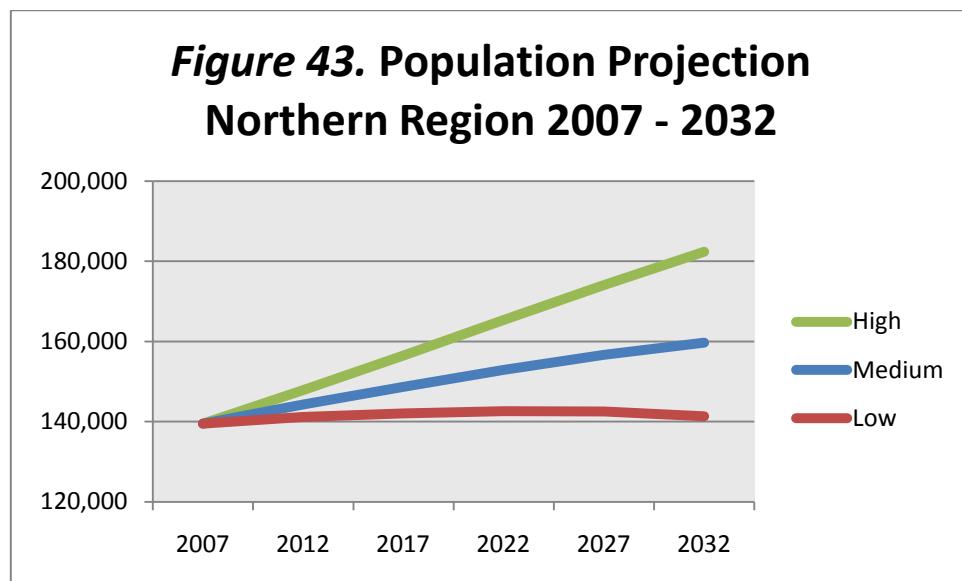
In 2011, the population of the Northern Region was 143,559 (ABS Regional Population Growth, Australia, 31 July 2012), approximately 28% of the State's total. Around 80% of the Region's residents live in urban centres and localities, with the greatest concentration in Greater Launceston and West Tamar (Census 2006).

## Population change

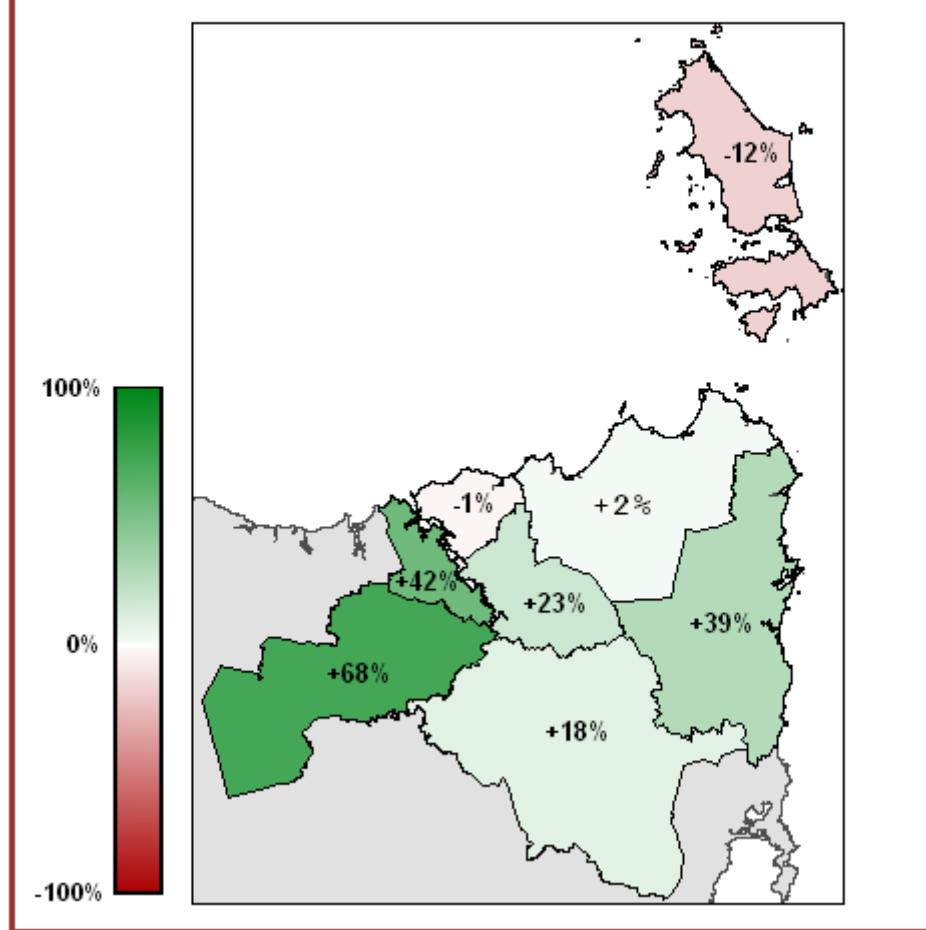
Despite previous projections showing an overall rate of population decline for the Region, current trends suggest an increase in population of 20,258 over the next 20 years – or around 14.5% (Figure 1). This is a positive shift forward for the Region, however, it does mask some underlying vulnerabilities. While the population of the 'working' age bracket

(those aged 15-64) will increase marginally over this period, 82% of the population growth for the Region is expected in the 65+ age bracket (DCAC 2008). The weight of this shift will present new and specific challenges for the Region's economy and its industry structure, as well as for its future transport infrastructure needs. An ageing population presents a number of challenges for the Northern Region including:

- An ageing workforce, possibly declining labour force participation rate, possible skills shortages and changing infrastructure requirements
- Changes in the composition of households and in the demand for community services, particularly by more isolated and low income older Tasmanians (need for improved accessibility and mobility)



## Population change, Northern Region LGAs 1986 -2011



**Figure 44.** Map of Northern Tasmania, displaying population change over a 25-year period, 1986-2011.

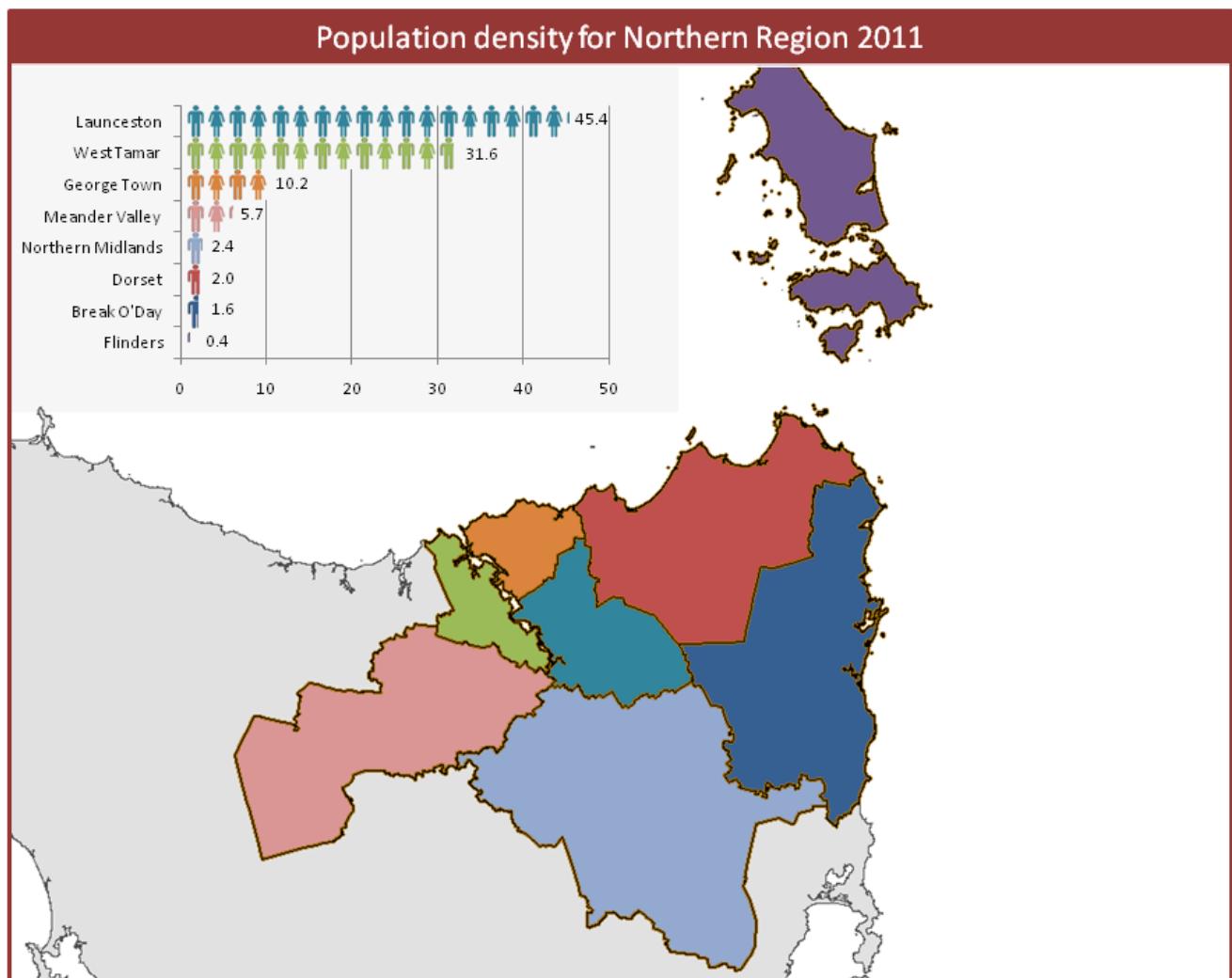
### Population change by Local Government Area

Name	1986	2011	Change	% Change
Break O'Day (M)	4681	6512	1831	39%
Dorset (M)	7216	7351	135	2%
Flinders (M)	1002	884	-118	-12%
George Town (M)	6933	6894	-39	-1%
Launceston (C)	53837	66029	12192	23%
Meander Valley (M)	11727	19746	8020	68%
Northern Midlands (M)	10802	12726	1924	18%
West Tamar (M)	16027	22699	6672	42%

**Figure 45.** Populations of Northern Councils in 1986, 2011 and the total change.

As the above tables and figures show, the greatest population changes in the past 25 years have been the decline in population in Dorset and the increase in Meander Valley. Break

O'Day and West Tamar have also shown reasonable growth during the period. Some of this growth is due to people's lifestyle factors such as the willingness to travel further to work by car to access housing which is affordable. It also demonstrates that what people view as the outer limits of Launceston have extended well beyond the boundaries of the Local Government Area of Launceston City Council.



**Figure 46. Population density for Councils in the Northern Region in 2011.**

Population density for the Northern Region in 2011 shows the greatest density of people to be situated in and around the urban and industrial centres of Greater Launceston and its surrounds. Launceston represented the most significant population density within the Region with around 45 people per km<sup>2</sup>, followed by West Tamar with nearly 32 people per km<sup>2</sup>.

#### **Aboriginal and Torres Strait Islanders – proportion of population**

In 2011, over 19,000 Tasmanians identified themselves as being indigenous, representing approximately 4% of Tasmania's total population. Within the Northern Region, over 4,000 people identified themselves as indigenous, representing nearly 3% of the total Regional

population. It is worth noting that despite this figure, over 16% of the population of Flinders identified themselves with being indigenous.

### **Dependency ratios**

The dependency ratio represents the number of children aged 14 and younger, and people aged 65 years and older, relative to the total number of people of working age (15-64) in the population. This ratio is often split into aged dependency and child dependency ratios. These ratios identify the numbers of dependent persons per one hundred people of working age. A high ratio means that those of working age – and the overall economy – face a greater burden in supporting aged/child populations.

In 2011, the Northern Region had an aged dependency ratio of 20.4, and a child dependency ratio of 24.6. The aged dependency ratios range from Launceston with 19.6, to Break O'Day with 30.1. Child dependency ratios range from Flinders with 16.7 to George Town with 28.

While it appears positive that the child dependency ratio out-numbers that of the aged dependency ratio, with 82% of the Region's population growth over the next 20 years expected to be in the 65 and over range, the aged dependency ratio is set to increase significantly.

### **Household size**

In 2011, average household size in Tasmania was 2.4, with the Northern Region just below that with 2.3. This demonstrates a 0.1 decrease on average household size from 2001 (for both Tasmania and the Region respectively). Across the Region, the average size fluctuated between 2.1 in Break O'Day to 2.5 in West Tamar – with the exception of Flinders which had an average of 1.9 people per household.

Tasmania's household growth is projected to be the slowest of all the states and territories, reflecting the relatively low population growth projected; this low growth is set to result in the smallest average household size in the country by 2031 (ABS Household and Family Projections, Australia, 2001 – 2031).

Anecdotal evidence suggests that house sizes are increasing as occupancy rates are decreasing, resulting in a greater number of larger houses with fewer people in them.

### **Household and family type**

Households in the Northern Region in 2011, as classified by family type, consist fairly evenly of couples with children (29.2%), lone person households (28.5%) and couples without children (27.1%). One-parent families averaged around 11%, with group/share housing just over 3%. In summary of the Northern LGAs:

- Flinders had the highest proportion of households containing couples with no children (38%) and lone person households (35%), emphasising the high proportion of 'empty nesters';
- Meander Valley and West Tamar have the highest average of couples with children households (both 31%);

- George Town and Launceston both have the highest average of one-parent families (both 13%); and
- Launceston has the highest rate of group/share housing (5%), reflecting the larger-than-average tertiary student population and ‘city-philic’ young working professionals.

### **Individual and household income**

In 2011, the average weekly individual income for the Northern Region was \$200-\$399 per week (Table 2). Within the Region itself, the LGA with the highest average individual income was \$400-\$599 in the Northern Midlands (15.4%), while West Tamar was the only LGA to record above the Regional- average for all average weekly individual income brackets above \$800 per week.

**Figure 47. Percentage average weekly individual income of Northern LGA**

	Break O'Day	Dorset	Flinders	George Town	Launceston	Meander Valley	Northern Midlands	West Tamar	Northern Region
<b>Negative/Nil income</b>	5.7	6.0	5.7	6.4	6.1	6.5	6.4	6.4	6.2
\$1-\$199	7.9	8.9	7.5	8.5	8.1	8.1	8.4	8.4	8.2
\$200-\$299	21.3	17.7	13.4	17.7	14.5	14.0	14.3	13.0	14.8
\$300-\$399	17.4	15.4	15.5	14.6	12.3	12.9	12.7	11.4	12.8
\$400-\$599	15.2	14.9	13.7	12.9	14.2	14.8	15.4	13.7	14.3
\$600-\$799	9.0	11.7	12.0	10.3	11.8	11.9	11.9	11.0	11.5
\$800-\$999	6.0	7.3	10.5	6.7	8.5	8.5	8.9	9.0	8.3
\$1,000-\$1,249	4.0	5.1	5.9	5.6	7.0	7.1	6.7	7.3	6.7
\$1,250-\$1,499	2.1	3.2	3.0	4.0	4.2	4.2	4.0	5.0	4.1
\$1,500-\$1,999	2.6	2.5	3.6	4.8	4.5	4.1	3.5	5.8	4.4
<b>\$2,000 or more</b>	1.7	1.5	3.3	1.7	2.8	2.2	2.2	3.5	2.6

residents in 2011 (ABS Census of Population and Housing 2011). \*Does not include those who did not state an income.

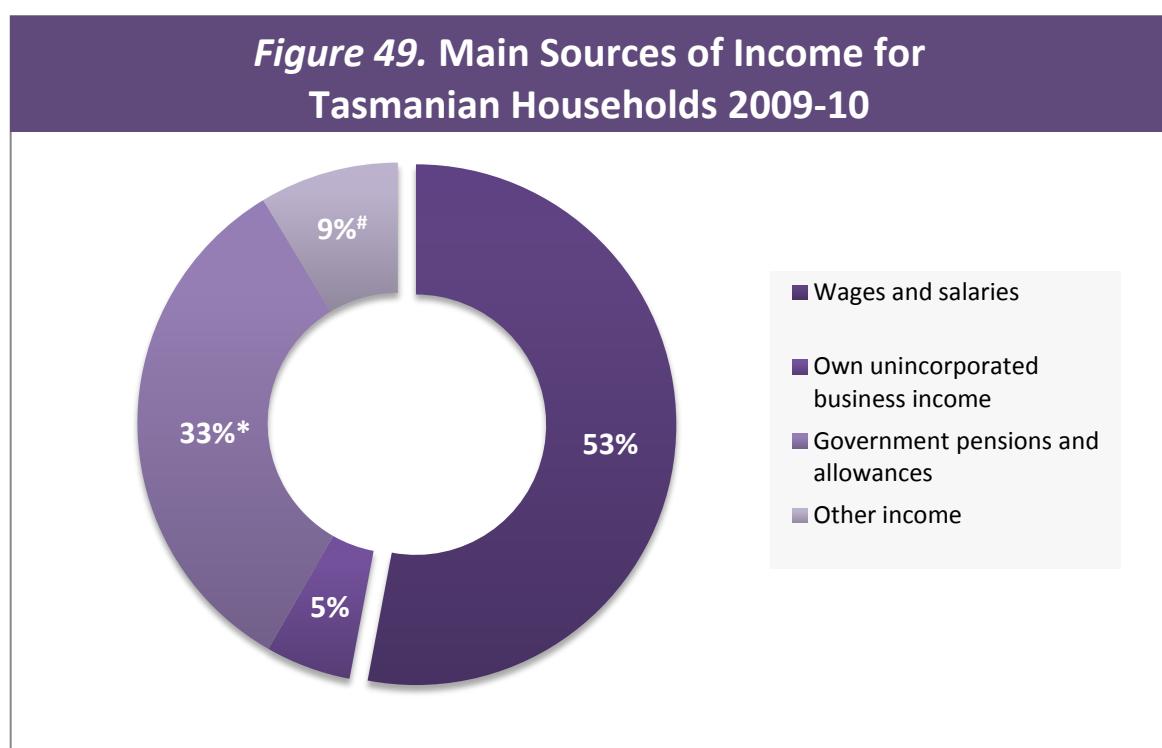
The average weekly household income in the Northern Region was \$400-\$599 per week (Table 3). Within the Region itself, the LGA with the highest average household income was \$800-\$999 in Flinders (12.1%), while West Tamar was again the only LGA to record above the Regional- average for all average weekly household income brackets above \$1,250 per week.

	Break O'Day	Dorset	Flinders	George Town	Launceston	Meander Valley	Norther n Midlands	West Tamar	Northern Region
<b>Negative/Nil income</b>	1.7	0.9	2.0	0.9	0.9	1.1	1.1	0.9	1.0
<b>\$1-\$199</b>	2.8	2.3	3.5	2.8	1.7	1.6	1.9	1.4	1.8
<b>\$200-\$299</b>	6.5	4.3	4.6	5.3	4.4	3.5	3.5	2.9	4.1
<b>\$300-\$399</b>	12.3	12.3	10.4	10.5	9.3	8.5	8.4	7.4	9.2
<b>\$400-\$599</b>	17.5	16.8	11.3	14.4	13.2	13.9	14.0	11.6	13.5
<b>\$600-\$799</b>	13.1	12.3	11.6	11.4	11.1	10.6	10.7	10.2	11.0
<b>\$800-\$999</b>	10.6	9.9	12.1	8.7	8.9	9.5	9.9	9.8	9.4
<b>\$1,000-\$1,249</b>	7.5	8.1	9.0	8.1	9.1	8.4	8.6	8.1	8.6
<b>\$1,250-\$1,499</b>	4.8	7.3	5.5	6.1	7.4	7.2	8.2	7.5	7.2
<b>\$1,500-\$1,999</b>	5.8	7.3	10.1	9.2	10.0	10.4	10.4	11.4	10.0
<b>\$2,000-\$2,499</b>	2.9	4.4	5.5	6.2	6.4	7.5	6.5	7.6	6.4
<b>\$2,500-\$2,999</b>	1.9	2.0	3.5	3.3	4.0	4.0	3.4	5.5	4.0
<b>\$3,000-\$3,499</b>	0.9	1.0	0.9	1.6	2.4	2.2	1.5	3.3	2.2
<b>\$3,500-\$3,999</b>	0.2	0.5	0.9	0.5	0.9	0.9	0.9	1.3	0.9
<b>\$4,000 or more</b>	0.4	0.7	0.0	0.6	1.1	0.9	0.9	1.3	1.0

**Table 48. Percentage average weekly household income of Northern LGA residents in 2011 (ABS Census of Population and Housing 2011). Does not include households where at least one member did not state an income.**

#### Main sources of income

For 2009-10, over half of all household incomes in Tasmania were from wages and salaries; another third were from government pensions and allowances (Figure 1). The figures also represents an improvement on 2003-04 figures which suggested a higher percentage of income was sourced from government pensions and allowances (36%), with a small improvement in earned wages and salaries (52%); other income sources have also since increased by 50% (ABS Household Expenditure Survey, Tasmania, 2003-04).



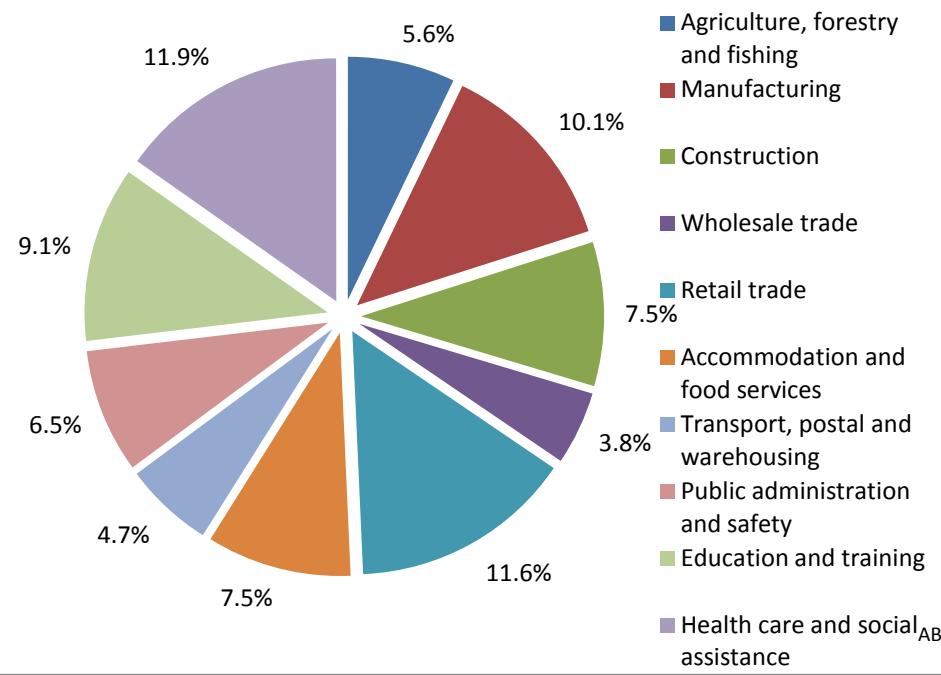
\*Includes age pensions, disability/carer, unemployment, study and family payments.

*#Includes investment and superannuation/annuity incomes.*

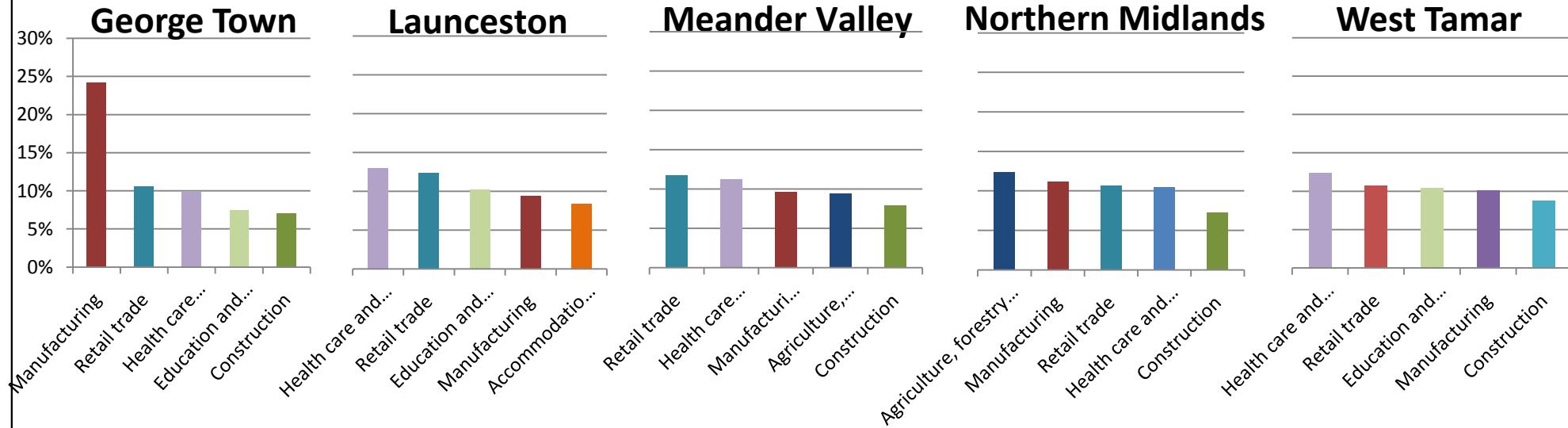
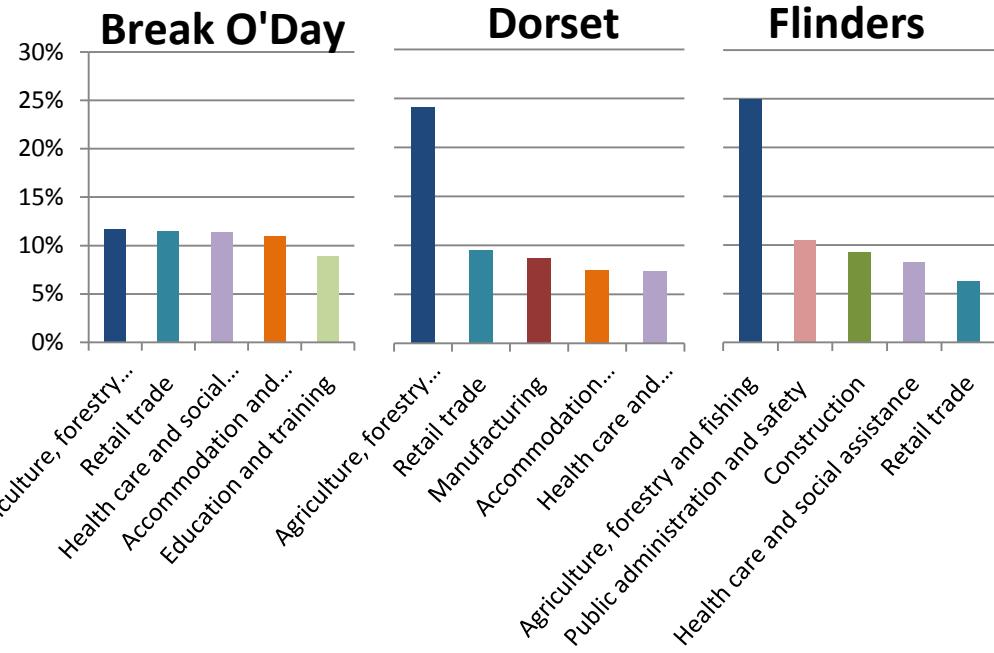
## **Labour force**

In the Northern Region in 2011, there were approximately 59,700 people employed in the labour force. The top three employment sectors in the Region were healthcare services (11.9%), retail (11.6%) and manufacturing (10.1%). The strength of industry and the highest employing sectors varies between municipalities, demonstrating the significant variation in economic strengths within the Region (see figure 5). This variability and employment diversity has helped build resilience into the Region, and is an asset to its future growth and development. The transport implications of this, however, suggest that there is the ongoing need to maintain connectivity between towns and regional centres: there is a high degree of flow across the Region between where people choose to live and where they choose to work. This, too, results in the high-dependence on private vehicle travel and the need for owning multiple vehicles.

**Figure 50. Top 10 Employment Sectors  
Northern Region 2011**

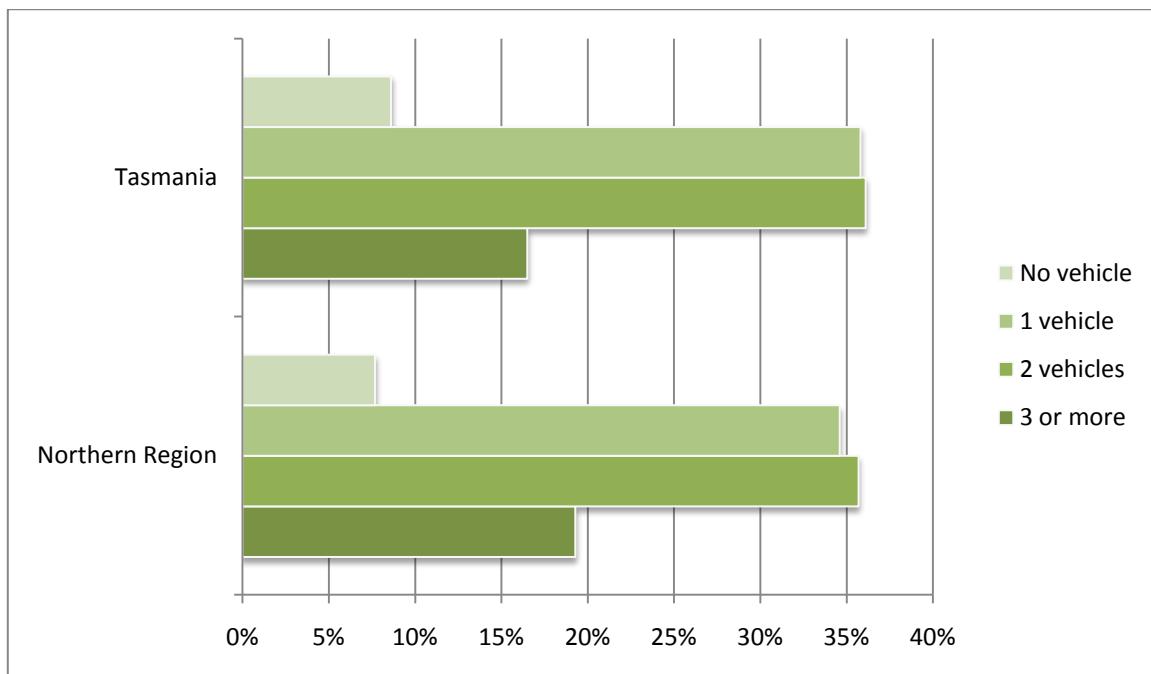


ABS 2011 Census of Population and Housing



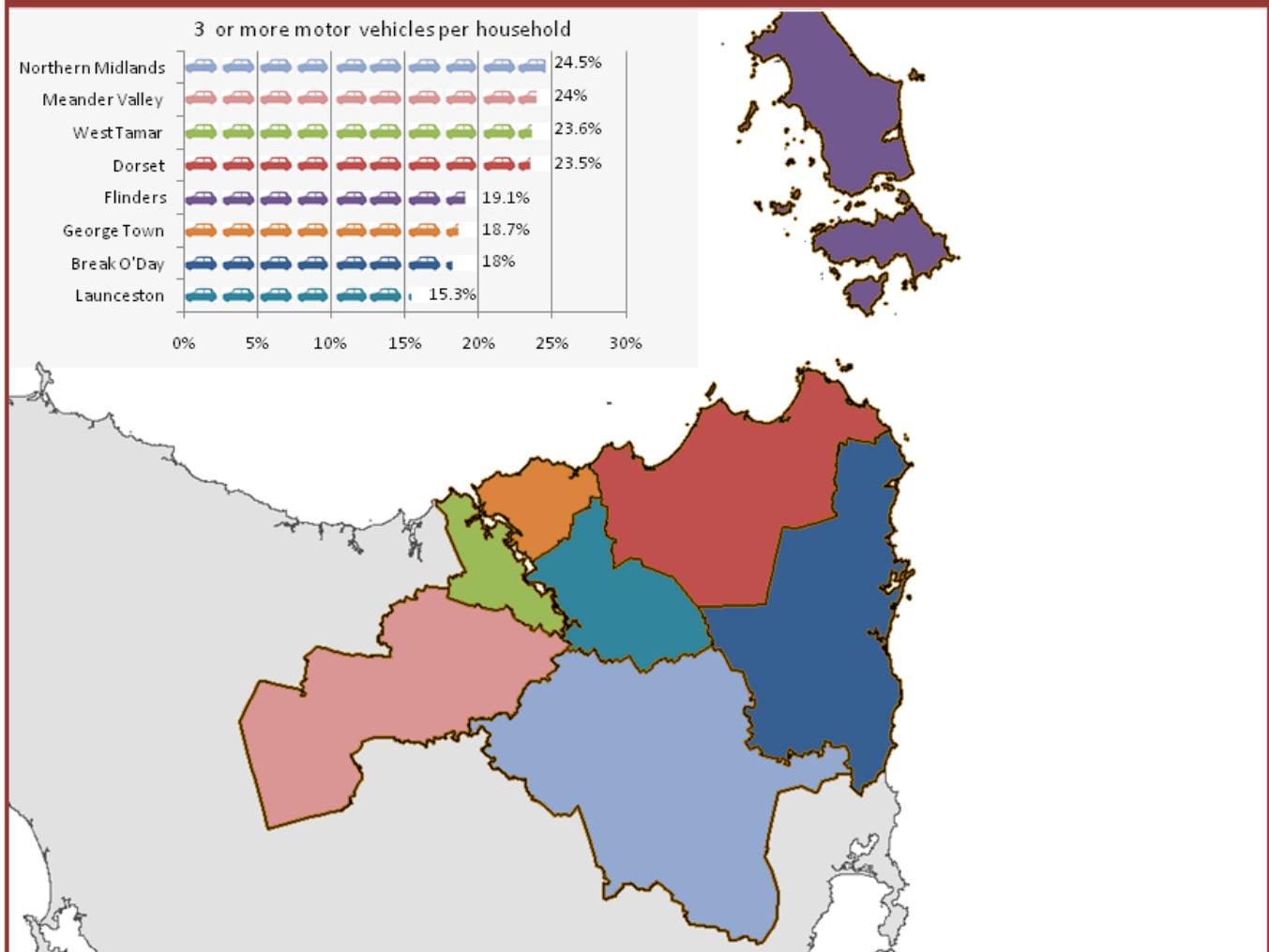
### **Car ownership – limited access to vehicles**

Car ownership in Northern Tasmania is relatively consistent with respect to overall state and national figures. Of particular note is the high proportion of households which own three or more motor vehicles: Launceston is the only LGA where this percentage is less than the national average, with Dorset, Meander Valley, Northern Midlands and West Tamar demonstrating numbers nearly 50% higher than the national average.



**Figure 51. Car ownership of households in Tasmania vs households in Northern Region, 2011.**

## Car Ownership by Household for Northern Region 2011



**Figure 52. Car ownership – 3 or more vehicles per household – for Northern Councils, 2011.**



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