

Brooker Highway Transport Plan

February 2011

*Department of Infrastructure,
Energy and Resources*



Tasmania
Explore the possibilities

EXECUTIVE SUMMARY

The Brooker Highway Transport Plan sets a shared vision for the future of the Brooker Highway. The Plan delineates objectives and principles for future investment in the highway for the short, medium and long term, to enable the highway to cater for current demand and future transport needs.

VISION

Brooker Highway will continue to be a safe and efficient urban highway, able to cater for a large and growing transport task (including freight and passengers) and facilitate local transport access.

OBJECTIVES

To achieve the Plan's vision, the key objectives for the Brooker Highway are to:

- **Maintain capacity and travel time reliability** for efficient movement of freight and passengers
- **Improve road safety** and reduce crash rates, through strategies and infrastructure solutions
- **Improve local connectivity** between residential areas and activity centres for both vehicles and pedestrians, including connections to key local roads (e.g. Main Road)
- Create **land use planning and development patterns** that support the function of the Brooker
- **Manage infrastructure assets** to deliver appropriate level of service and visual amenity
- **Monitor future trends** in the transport system to adapt planning and meet changes in demand
- Improve **residential amenity** for people living along the Brooker Highway

PROJECT PRIORITIES

To achieve the Plan's objectives, a series of priority projects and key initiatives have been identified.

Using current information, the Plan identifies priority projects over the short (immediate to three years), medium (three to 10 years) and long (10 to 25 years) term.

Capacity and efficiency priorities are based on analysis of current and predicted future traffic volumes, the effect of these volumes on intersection and road segment levels of service, and ability to improve travel time reliability through non-infrastructure solutions.

Road safety priorities will be based on identification of the crash patterns on the highway. Specific projects will be integrated with other upgrades such as intersection or accessibility upgrades. Other safety initiatives will relate to the highway as a whole.

Local connectivity priorities will be based on addressing known connectivity problems between communities and activity centres, and an assessment of both pedestrian and vehicular connections, along the Brooker.

Asset maintenance priorities are based on providing appropriate road pavement, signage and improved general appearance of the highway.

The priority for **land use and development patterns** is to ensure that future land use changes and new developments support the function of the highway and minimise their impact on the capacity and efficiency of the highway.

Monitoring future trends is important to identify key trends and impacts which will affect the Brooker Highway over the longer term. The impact of these trends is currently not clear and ongoing review of these longer-term trends through data collection and model development forms a key project, and will provide the basis for evidence-based responses to be developed within the Plan timeframe.

Introduction

The Brooker Highway is a key link in Tasmania's transport network and it is important that strategic planning is undertaken to ensure that its capacity to carry freight and people safely and efficiently is protected and enhanced over the long term balanced with the need to cater for local access in strategic locations.

The Department of Infrastructure, Energy and Resources (DIER), Brighton, Glenorchy City and Hobart City Councils¹ agreed to jointly develop a Brooker Highway Transport Plan to:

- provide a shared understanding of the importance and function of the Brooker Highway;
- provide an agreed framework for identifying, prioritising and implementing upgrades and development along its length of the Highway; and
- assist the State Government in attracting Federal Government funding for infrastructure upgrades.

The Brooker Highway Transport Plan has been developed by a working group of nominated representatives from DIER and the Brighton, Glenorchy City and Hobart City Councils. The working group met between December 2009 and March 2010, and focussed on identifying the key future issues for the Brooker Highway. These include efficiency, safety, accessibility, land use planning and asset restoration.

Development of the Brooker Highway Transport Plan has occurred in parallel with other initiatives being investigated or undertaken by the Tasmanian Government, including the Midland Highway Partnership Agreement, Southern Tasmania Regional Land Use Framework, Southern Integrated Transport Plan and Southern Tasmanian National Network Investment Programme. The Plan is informed by the objectives and analysis of the Tasmanian Urban Passenger Transport Framework, the Tasmanian Government's submission to Infrastructure Australia and past traffic modelling in support of specific initiatives on the Highway (determination of options at Elwick-Goodwood intersection and whole of corridor modelling of bus priority measures). This background information is summarised in the Brooker Highway Transport Plan: Draft Background Report (Feb 2010).

Vision

The Brooker Highway will continue to be a safe and efficient urban highway, able to cater for a large and growing transport task (including freight and passengers) and facilitate local transport access.

Objectives

To achieve the vision, the key objectives for the Brooker Highway are:

¹ DIER also consulted Derwent Valley Council in January 2011 because a short northern section of the Brooker Highway is located in the Derwent Valley Local Government Area

1. **Maintain capacity and travel time reliability** for efficient movement of people and freight
2. **Improve road safety** and reduce crash rates, through strategies and infrastructure solutions
3. **Improve local connectivity** between residential areas and activity centres for both vehicles and pedestrians, including connections to key local roads (e.g. Main Road)
4. Create **land use planning and development patterns** that support the function of the Brooker
5. **Manage infrastructure assets** to deliver appropriate level of service and visual amenity
6. **Monitor future trends** in the transport system to adapt planning and meet changes in demand
7. Maintain **residential amenity** for people living along the Brooker Highway

Strategic Context

The Brooker Highway is a critical transport link in metropolitan Hobart, and a key part of the intra-state freight supply chain. Under the Tasmanian State Road Hierarchy, the Highway is a Category 1 trunk road and is part of the National Network, providing a strategic north-south link for passengers and freight. The National Network in Tasmania connects southern Tasmania and Hobart with northern centres and Tasmania's main export ports.

Freight

The Highway carries the highest value tonnage of all roads in Southern Tasmania, carrying around 2 million tonnes in 2005-06, valued at around \$2 billion. In terms of value, this is around three times higher than both the Tasman Highway and the Southern Outlet.

One of Hobart's major industrial and manufacturing areas is located around Derwent Park and the Brooker Highway, with a broad range of freight generating industries represented, including light industrial activities, warehouse and distribution centres, and heavy industry.

The development of the Brighton Transport Hub will see heavy freight movements shift to the northern section, with reduced freight movements south of Risdon Road. The role of the Highway as a major freight route for heavy and light commercial vehicles is expected to continue over the long-term, consistent with the current and future location of industrial-zoned land around Glenorchy and the Brighton Transport Hub. The highway will remain the key connection between these two centres. As commercial centres grow and smaller commercial centres emerge to support residential areas, transport movements may move more toward shorter, more local trips.

Passengers

The Brooker Highway plays a significant role in regional and local passenger movements. The Highway directly links three Local Government Areas; Hobart, Glenorchy and Derwent Valley. It also facilitates access to and from Brighton (via the Bridgewater Bridge and the Midland Highway),

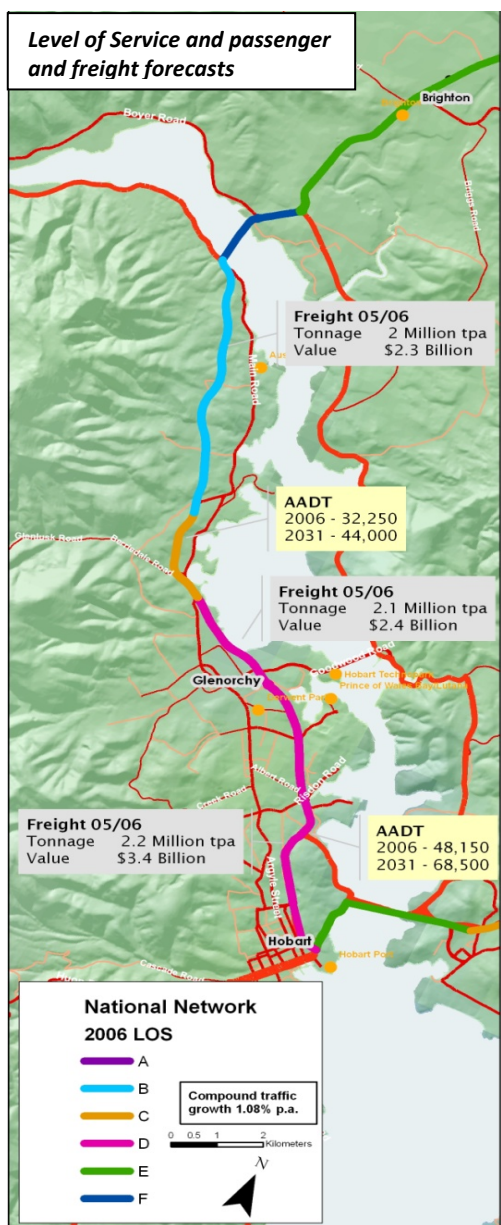
Clarence (via the Bowen and Tasman Bridges), Kingborough and the Huon Valley (via the Southern Outlet and the Huon Highway).

The Brooker Highway is the key northern link to the Hobart city centre, Tasmania’s capital city and primary activity centre. Hobart is the administrative base for the state, providing significant employment, a thriving retail centre and holds 10% of Tasmania’s population. Glenorchy also is a considerable regional employment centre and attracts a significant share of the commercial and retail market. Glenorchy’s population comprises around 9% of the State’s population.

The Brooker Highway is part of a local transport system that includes Main Road and major connecting roads, including Derwent Park and Risdon Roads. Main Road is a parallel route to the Brooker Highway, connecting major suburbs within Glenorchy (Moonah, Berriedale) to local commercial centres and to Hobart. While the Brooker Highway has a number of express bus services from the northern suburbs, Main Road is the major public transport route, reflecting its proximity to major residential areas and activity centres. In addition to these road corridors, the existing rail line from Brighton to Hobart Port will cease to be utilised by freight trains following completion of the Brighton Transport Hub, raising the potential that the line could be used for passenger transport services over the long term. The Tasmanian Urban Passenger Framework (2010) provides the policy and planning context for how passenger services can be developed over the long-term to better meet metropolitan passenger needs. The Framework included analysis of re-use of the rail corridor² for passenger light rail, and it was recognised under this study that the project at least partly relies on and would be strengthened by greater residential densities directly adjacent to the rail line. Planning to improve public transport reliability and travel times from the northern suburbs will need to consider the entire northern corridor of Main Road, the Brooker Highway, and the rail corridor.

Traffic Volume and Level of Service

The Brooker Highway carries the second highest traffic volumes in Greater Hobart, after the Tasman Bridge. The section between the Domain Highway and Derwent Park Road has the highest volumes, averaging nearly 50,000 vehicles per day



² The Hobart Light Rail Cost Estimate: desktop system design and service model (2009) – Parsons Brinckerhoff Australia

(AADT – Average Annual Daily Traffic). Analysis of Hobart’s five main arterial corridors shows that travellers along the Brooker Highway experience the longest delays and the slowest travel speeds.

The Brooker Highway can be divided into two sections with distinct characteristics:

Northern section <i>Berriedale Road to Bridgewater Bridge</i>	<ul style="list-style-type: none">• Lower traffic volumes (15 000 – 25 000 AADT)• Grade-separated interchanges and no direct property accesses• Higher posted speed (generally 100 km/h)
Southern section <i>Berriedale Road to Davey Street</i>	<ul style="list-style-type: none">• High traffic volumes (25 000 – 50 000 AADT)• Lower posted speeds (60-80 km/h)• High volume intersections, connecting to adjacent industrial and residential areas• Significant number of direct property accesses

There are capacity issues on the southern section and at some key intersections, reflecting overall traffic volumes and the number of major intersections in the southern section. Capacity on the northern section is adequate to cater for current demand.

In terms of Level of Service (LOS)³ the southern section of the Brooker Highway between Berriedale Road and Davey Street is already at LOS D, which signifies severely restricted flow. Key intersections are located at Domain Highway Interchange, Risdon Road, Derwent Park Road, Howard Road and Goodwood Road-Elwick Road. In 2008/09, DIER undertook a detailed review of options at Goodwood-Elwick and Howard Roads, including identification of design options and detailed traffic modelling. At the time, analysis of bus priority and dedicated bus lane options for the Brooker Highway was also undertaken using detailed traffic modelling. The Brooker Highway Transport Plan provides the strategic direction and specific actions required to inform and progress the decision making process for the Goodwood-Elwick and Howard Road intersections involving DIER and Glenorchy City Council.

Road Crash Analysis

On the Brooker Highway, between the Midland Highway and Davey Street junctions, there were 289 recorded casualty crashes⁴ including 4 fatality and 36 serious injury crashes, in the five-year period from 2001 to 2005.

³ Operational conditions of a road can be evaluated by referring to the Level of Service (LOS). LOS categories scale from LOS A – free flowing conditions – to LOS F – gridlock.

⁴ The term ‘casualty crash’ is used to collectively describe fatal, serious injury, minor injury and first aid at scene crashes

In general, higher crash rates exist on road sections on the southern parts of the Brooker Highway, however the links from Berridale Road to Montrose Bay High School and Main Road, Granton to the Lyell Highway junction also have relatively high crash rates. These latter two sections have merging lanes and changes in speed limits which may contribute to higher rates, while the southern links are more congested.

The four fatal crashes between 2001 and 2005 were all on link sections rather than at junctions, with two of the crashes in the lower speed sections south of Elwick Road and two in the more free flowing sections north of Elwick Road. A total of 6 fatal crashes occurred in the periods 1996 to 2000 and 2006 to 2009, with all crashes occurring in the higher speed, lower traffic volume link sections north of Elwick Road.

Transport demand – future trends

Over the next 30-40 years, a range of factors will affect the function and use of the Brooker Highway. Predicting, planning and managing for the impact of these changes on the Brooker Highway is complex.

Changes in transport demand will generate additional traffic on different sections of the Brooker Highway. Land use change is one of the key drivers of changing transport demand. The development of a Southern Tasmania Regional Land Strategy⁵ will introduce coordinated, consistent and contemporary planning schemes to guide and influence future changes, such as:

- number of houses constructed over the next two decades, their location, household size and likely trip generation rates;
- growth or decline in commercial centres (e.g. Northgate, Hobart CBD) affecting both employment and the attractiveness of centres to consumers;
- changes to major employers located in Hobart, Glenorchy or Brighton that will change journey to work patterns or free up land for re-development for other uses; or
- new schools or a change in the location of schools, generating new peak period movements.

Population growth in the northern suburbs will result in additional transport demand along the Brooker Highway. In 2032, projections indicate that between 9500 and 16000 (16-27%) additional people will live in Glenorchy and Brighton, with up to an additional 16000 (21%) more in the following 25 years to 2057⁶. The majority of this growth is expected in the Brighton LGA, which in combination with any growth in the northern parts of Glenorchy will be the major contributor to increased Brooker Highway traffic flow in the direction of peak time congestion.

The demographic profile of Greater Hobart will have an effect on Brooker Highway traffic, as different parts of our community place varying demands on the transport system. Population

⁵ Southern Tasmania Regional Planning Project is currently being undertaken as a joint planning initiative between State and Local Government

⁶ based on Demographic Change Advisory Council (DCAC) medium and high growth projections <http://www.dcac.tas.gov.au/>

projections indicate that the populations of Hobart, Glenorchy and Brighton will age over the next 20 years, and by 2032 the numbers of working age people in Brighton is likely to increase by up to 6000. However, this is countered by a decrease of between 1000 and 3000 working age people in the Glenorchy LGA.

Employment location can result in changes in traffic on the Brooker Highway. Over the last 10 years in Brighton and Glenorchy, there has been a small increase in the percentage of people travelling to work outside their Local Government Area⁷. Other LGAs in greater Hobart have exhibited an increase in people travelling to work within their home LGA. If this trend is stabilised or reversed, it could lower peak hour traffic flows on the Brooker Highway. The overall employment rate can also affect the Brooker Highway's traffic. Levels of unemployment in some suburbs of Glenorchy and Brighton are well above the state average, and increased workforce participation would likely result in increases in traffic.

Public transport utilisation for Journey to Work (JTW) trips in greater Hobart (6%) is lower than other Australian state capitals (average 11%) and was in a downward trend until 2001. For JTW trips from Glenorchy to Hobart utilisation of public transport is relatively high at 11%. However, less than 5% of JTW trips from Brighton are made by bus, whilst JTW trips within the Glenorchy LGA are only 3%. Improved public transport combined with other measures, such as reduction in car parking or higher transport costs, could increase public transport mode share and reduce peak period traffic.

Planning for the future Brooker Highway

The Brooker Highway Working Group developed a future scenario for the Brooker Highway recognising the primary role of the highway as a strategic freight and passenger route that supports high volumes of inter-regional and intra-state movement. The Group agreed the future focus should be on:

- consolidating the strategic function of the Highway as a higher-speed arterial road with limited, high capacity access points;
- supporting efficient and safe access for heavy and light commercial vehicles;
- protecting the function of the Highway through good land use planning decisions;
- facilitating safe pedestrian access at key locations; and
- planning the local transport function of the Brooker Highway in the context of the broader network, particularly the Main Road-Elizabeth Street corridor.

Traffic volumes along the Brooker Highway will remain high in the future, reflective of the ongoing strategic role of the Highway. However, broader passenger transport and freight demand management policies will aim to keep annual growth rates low. In the short to medium term,

⁷ Based on Australian Bureau of Statistics (ABS) Journey to Work 1996, 2001, 2006

capacity and efficiency upgrades to improve LOS are required on the southern section of the Highway, with two priority areas:

- 1) At the intersections between Berriedale Road and Howard Road Roundabout; and
- 2) Between Howard Road Roundabout and the Domain Highway interchange.

The Action Plan to this Plan (Appendix A) identifies the progressive and collaborative development and delivery of options at these major intersections, as a priority.

To support efficient and safe access for freight, industrial activities between Glenorchy and Brighton will be linked via the Highway, with a focus on light industrial uses and smaller lot sizes in Glenorchy and larger warehousing and storage at Brighton, where lot sizes are larger and there is direct access to the Brighton road-rail hub. Freight traffic volumes on the northern section of the Highway will increase following the shift of Hobart's transport hub to Brighton, and will continue to increase over time in line with the southern region's freight task. There will also be a shift toward smaller and lighter vehicles over time as heavy freight is off-loaded at Brighton.

To protect the function of the highway through land use planning decisions, residential development will be consolidated in and around existing residential areas, catering for infill higher-density growth in appropriate locations close to high-frequency bus corridors and activity centres. These centres include North Hobart and Lenah Valley, Moonah to Glenorchy, Claremont and Bridgewater. Consolidation and mixed-use development will support local shops and key services at major centres – Glenorchy, Claremont, Bridgewater, North Hobart – reducing the need to undertake local cross-trips on the Brooker Highway and supporting a shift to non-car modes such as walking, cycling and usage of public transport.

Connectivity between suburbs separated by the Brooker will be improved, through improvements at key intersections, to improve both safe pedestrian movements and cross-highway traffic movement. In addition, pedestrian overpasses will be Disability Discrimination Act compliant and appropriately located at key locations between intersections to maximise cross-highway pedestrian connectivity. In the short to medium term, planning will need to address connectivity and accessibility issues around new developments such as the Glenorchy Art and Sculpture Park (GASP), Museum of Old and New Art (MONA), and the proposed developments at Wilkinson's Point.

The number of direct accesses onto the Brooker will be reduced over time, in line with the development of alternative access arrangements from the local road network. The southern section of the Highway from Domain Highway intersection to Berriedale Road is the focus for intersection and access management.

Project Identification and Prioritisation

To achieve the Plan's Objectives, a series of projects and key initiatives have been identified and prioritised on the following principles:

1. **Capacity and efficiency priorities** have been identified based on analysis of current and predicted future traffic volumes, the effect of these volumes on intersection and road segment levels of service, and ability to improve travel time reliability through non-infrastructure solutions.
2. **Road safety priorities** will be based on identification of the crash patterns on the highway. Specific projects will be integrated with other upgrades such as intersection or accessibility upgrades. Other safety initiatives will relate to the highway as a whole.
3. **Local connectivity priorities** will be based on addressing known connectivity problems between communities and activity centres, and an assessment of both pedestrian and vehicular connections, along the Brooker.
4. **Asset maintenance priorities** are based on providing appropriate road pavement, signage and improved general appearance of the highway.
5. The priority for **land use and development patterns** is to ensure that future land use changes and new developments support the function of the highway and minimise their impact on the capacity and efficiency of the highway.
6. **Monitoring future trends** is important to identify key trends and impacts which will affect the Brooker Highway over the longer term. The impact of these trends is currently not clear and ongoing review of these longer-term trends through data collection and model development forms a key project, and will provide the basis for evidence-based responses to be developed within the Plan timeframe.

Current Projects

Recently completed projects:

New roundabout and junction arrangements - Lyell Highway and Midland Highway junction

Current projects:

Brighton Bypass and Brighton Transport Hub are under construction with a total investment of \$243 million.

The Brighton Transport Hub will provide a new intermodal hub for Greater Hobart to replace the existing hub at Macquarie Wharf. This project will be completed by June 2012.

Projects under the Brooker Highway beautification strategy are being implemented including landscape plantings and art installations. Funded projects will be completed by December 2010.

Current planning projects:

Addressing capacity, efficiency and safety on the Highway between Montrose Bay High School (Foreshore Road) and Howard Road Roundabout is the first priority, with planning components including:

- Planning and design work has been undertaken for several upgraded intersections options at Howard Road and Elwick / Goodwood Roads
- Planning for the Foreshore Road intersection has commenced.
- Additional planning and consultation with Councils will continue, to ensure future options maximise safety and efficiency over this section of the Brooker Highway.

Capacity and efficiency upgrades on the Highway between Howard Road and Domain Road Interchange are considered to be a second priority, with current planning including:

- Planning work has commenced for upgrades to Domain Highway intersection; and
- increased lane capacity between Domain Highway and Risdon Road

Planning work has commenced for a new Bridgewater Bridge

Priority Projects

Following the six priority areas above, the Brooker Highway Transport Plan recommends priority projects for implementation in the following timeframes:

- Immediate to 3 years
- 3 to 10 years; and
- 10 to 25 years

Public consultation will occur around individual projects, in line with DIER's current consultation processes.

Further project details and locations are shown in Appendices A and B.

NEXT THREE YEAR PRIORITY PROJECTS

1. CAPACITY / EFFICIENCY PROJECTS

Planning

- Finalise strategic planning and design options for Brooker Highway intersection upgrades between Berriedale Road and Howard Road
- Finalise design options for Domain Highway intersection and increased lane capacity between Domain Highway and Risdon Road

- Intersection safety, accessibility and capacity review
- Examine options for variable speed limits

Infrastructure upgrades

- Howard Road / Elwick Road / Goodwood Road intersections – capacity and efficiency upgrades (note Foreshore Road included as a safety project)

Non-infrastructure measures

- Enhancements to traffic signal co-ordination following intersection upgrade at Howard Road
- Travel demand management measures – through Tasmanian Urban Passenger Transport Framework and Southern Integrated Transport Plan
- Implementation of Performance Based Systems (PBS) and providing quad axle vehicle access

2. SAFETY PROJECTS

- Removal of the Montrose Bay High School drop off / pick up from the highway
- Foreshore Road / Duncan Street intersection safety improvements
- Ongoing review of safety performance of the Highway, including speed limits

3. ACCESSIBILITY PROJECTS

- Provide Disability Discrimination Act compliant pedestrian crossings, in conjunction with intersection upgrades
- Inter-suburb access review for pedestrian and vehicle movements (including buses)
- Linkages to local road networks, including requirements for improved directional signage and information
- Linkages to new and proposed developments along Glenorchy foreshore, including the Glenorchy Art and Sculpture Park, Museum of New and Old Art and Wilkinsons Point

4. LAND USE PLANNING PROJECTS

- Maintain residential amenity – through planning controls
- Finalise DIER's noise policy

5. ASSET RESTORATION PROJECTS

- Develop an overall plan to progressively improve the appearance of the Highway
- Pavement rehabilitation and resurfacing – [ongoing program]

6. FUTURE TRENDS PROJECTS

- Regular program of Brooker Highway traffic counts, including local road counts
- Better understand light industrial vehicle movements

- Examine land use change on a regular basis, including industrial, commercial and residential development
- Analysis of travel demand information

THREE to 10 YEAR PRIORITY PROJECTS

1. CAPACITY / EFFICIENCY PROJECTS

- Domain Highway intersection – upgrade and increase capacity between Risdon Road and Domain Highway interchange
- Risdon Road to Howard Road – examine feasibility and cost of increasing capacity and removing or reducing direct accesses
- Lyell / Midland Highway intersection – upgrades associated with new Derwent River Crossing
- Non-infrastructure measures – implementation of Tasmanian Urban Passenger Framework and Southern Integrated Transport Plan
- Variable speed limits – implementation for sections south of Berriedale Road

2. SAFETY PROJECTS

- Intersections – implementation of intersection safety upgrade priorities based on review
- Safety statistics - review and act on issues

3. ACCESSIBILITY PROJECTS

- Inter-suburb access review – implementation of measures to improve inter-suburb access.
- Linkages to local road networks – improve directional signage and information to/from major ramps and key existing or new destinations

4. LAND USE PLANNING PROJECTS

- Continue examination of land use change on a regular basis, including industrial, commercial and residential development.

5. ASSET RESTORATION PROJECTS

- Visual Amenity – continue to implement based on plan
- Pavement rehabilitation and resurfacing

6. FUTURE TRENDS PROJECTS

- Continue Brooker Highway traffic counts, incorporating local road counts
- Industrial vehicle movements – continue monitoring

- Continue examination of land use change on a regular basis, including industrial, commercial and residential development
- Analysis of travel demand information -continue monitoring

10 to 25 YEAR PRIORITY PROJECTS

Continue ongoing programs in all category areas

Revision of the Brooker Highway Transport Plan, in conjunction with Local Government.

APPENDIX A: BROOKER HIGHWAY - ISSUES and RESPONSES

Priority: HIGH, MED OR LOW.

Timeframe: CURRENT / SHORT-TERM (0-3), MEDIUM (3-10), LONG (10+)

CATEGORY	ISSUE	EVIDENCE	RESPONSE	BENEFIT	TIMEFRAME	PRIORITY
1. Capacity and efficiency at major intersections	Efficiency and level of services at major intersections	Poor level of service, particularly at:	Upgrades to major intersections - Priority order:	Improved traffic flows, supporting signalisation	SHORT: Elwick / Goodwood-Howard Rd	HIGH
		- Elwick/Goodwood- Howard Road - Risdon Road-Domain Highway	- Elwick / Goodwood / Howard Roads - Domain Highway intersection	Improved safety and efficiency at major intersections.	MED: Domain-Risdon	
	Poor control of traffic flow - Howard Road roundabout	Lyell / Midland Highway Junction (with Brooker Highway) – upgrades associated with new Derwent River Crossing Progressive review of other major intersections based on level of service, safety and access		SHORT: review of other intersections		
Efficiency and capacity issues along the Brooker Highway	Forecast low growth rates but off a high traffic volume base	Travel demand management measures:	Improved travel reliability and accessibility	LONG [ongoing]	HIGH	
						For passengers: through implementation of the Tasmanian Urban Passenger Transport Framework and Southern Integrated Transport Plan; including provision of priority for public transport from the Northern Suburbs
						For freight: Implementation of national transport reforms – implementation of Performance Based Systems (PBS) and quad axle vehicles
	Variable speed limits – examine option as a mechanism to improve road capacity, efficiency and safety			SHORT: planning MED: implementation	MED	
	Investigate potential upgrades of lane capacity on key sections of the Highway, including:			MED: planning	MED	
	- Domain Highway to Risdon Road - Risdon Road to Elwick Road					
Co-ordination of signals	Inability to fully control traffic flow through signal co-ordination particularly because of Howard Road roundabout	Upgrade of Howard Road roundabout to enable co-ordination of traffic signals from beyond Elwick Road	More consistent traffic flow	SHORT	HIGH	
2. Safety	Safety and accessibility at intersections	Need to improve local access and safety (particularly for pedestrians) at minor intersections	Progressive review of intersections based on safety, access and level of service, including:	Improved safety, accessibility	SHORT: Lampton Avenue LONG: Burnett Street and Bowen Roads	MED
		- Lampton Avenue (pedestrian crossing) - Burnett Street (pedestrian crossing) - Bowen Road				

CATEGORY	ISSUE	EVIDENCE	RESPONSE	BENEFIT	TIMEFRAME	PRIORITY
	<i>Highway drop-off Montrose Bay High School</i>	Common practise for students to be dropped off or collected directly at the edge of the Brooker Highway adjacent to the school	Provide alternative drop-off area by improving the safety and accessibility of the Foreshore Road / Duncan Street intersection which provides vehicular access to the school	Removal of high risk practice	CURRENT: Foreshore/Duncan St:	HIGH
	<i>Road conditions and crash rates</i>	Narrow around the Domain Highway Some intersections have high crash rates	Ongoing review of safety performance of the Highway through monitoring of crash statistics as a mechanism for identifying key measures over time Major intersections addressed above	Improved safety for road users, including at key intersections	LONG	MED
	<i>Speed limit changes</i>	Different speed limits along the Highway can be confusing for drivers	Strategic review of speed limits Implementation of variable speed limits with adequate signage if found suitable	Limits consistent with driving environment	MED	MED
3. Accessibility	<i>Barrier to local movements (vehicles and pedestrians)</i>	Particular issue for Goodwood and Lutana – separated from major destinations (schools, shops, services); Elwick Bay, Derwent Entertainment Centre Issue for new developments along the Derwent foreshore including MONA, GASP and Wilkinsons Point Some pedestrian linkages are not DDA compliant Relationship to local networks including pedestrian and cycling accessibility is an issue for schools located adjacent to the Highway, particularly: - Montrose Bay High (both sites) - Goodwood Primary - Austins Ferry Primary	Undertake strategic review of pedestrian access along the Highway Includes understanding barriers, identifying appropriate crossing points and measures to facilitate crossing Undertake planning work to develop adequate accessibility options for vehicles and pedestrians around these developments Provide Disability Discrimination Act compliant pedestrian crossings in conjunction with intersection upgrades at Howard, Elwick, Goodwood Roads Access to Montrose Bay High assessments as part of upgrade of the School	Improved local accessibility	SHORT: identify MED: implement SHORT SHORT SHORT	HIGH HIGH HIGH HIGH
	<i>Linkages to local road network</i>	Ramps on northern section link poorly to local road network, leading to circuitous on and off movements	Improved directional signage and information to/from major ramps and key existing or new destinations (major roads, Austins Ferry Primary, commercial centres etc.)	Improved connectivity between the State and local road network	SHORT -MED	MED

CATEGORY	ISSUE	EVIDENCE	RESPONSE	BENEFIT	TIMEFRAME	PRIORITY
4. Land use planning	<i>Impact of future land use changes</i>	Need to understand and monitor the impact of land use changes on the Brooker Highway, and as part of the broader north-south corridor (Main Road and rail line)	Review traffic volumes and incorporate local road counts Five yearly review of key data – changes in industrial, commercial and residential development	Evidence-based approach to future planning	LONG	HIGH
	<i>Residential amenity</i>	Amenity of residential development abutting the Highway	Land use planning controls to reduce amenity conflicts, including location and design of new/upgraded residential development. Finalise Noise Policy to provide high level guidance on planning for noise along strategic land transport corridors	Land use planning that supports the strategic role of the Brooker Highway and improves amenity for adjacent communities	CURRENT	HIGH
5. Asset restoration	<i>Aesthetics</i>	General appearance of the Highway is poor. While the Highway is a dual-carriageway freight and passenger route, improvements to its appearance as a major entrance point to Hobart, are required. Issues include appearance of light poles, ageing trees, condition of curbs, landscaping adjacent to highway, signage etc.	Develop an overall plan to progressively improve the appearance of the Highway, reviewing roles and responsibilities, maintenance and ongoing budget. This will include integration of the existing Brooker Highway Beautification Strategy into this plan. Importance of a joint approach from State and local government, with a focus on greater resource sharing and efficiency.	Improved visual appearance of a key urban road	LONG [ongoing]	MED
	<i>Pavement condition / line-marking</i>	Should be maintained at high standard befitting importance of road	Pavement rehabilitation and resurfacing – ongoing program		LONG [ongoing]	MED
6. Future Trends	<i>Obtaining key traffic volume information</i>	Gap in knowledge – local road key intersection movements	Plan a regular program of Brooker Highway traffic counts incorporating local road counts	Evidence-based approach to future planning utilising accurate, up to date trend data	LONG [ongoing]	HIGH
	<i>Light industrial vehicles</i>	Gap in knowledge – increasing trends of usage, key routes	Develop a survey of light industrial vehicle movements	Understand of trends of usage and important routes	LONG [ongoing]	MED
	<i>Land use changes</i>	Gap in knowledge – future land use	Develop a program to examine key data on a regular basis (eg 5 years) examining changes in industrial, commercial and residential development	Understand how land use effects Brooker Highway traffic volumes and types	LONG [ongoing]	HIGH

CATEGORY	ISSUE	EVIDENCE	RESPONSE	BENEFIT	TIMEFRAME	PRIORITY
	<i>Travel Demand information</i>	Gap in knowledge – understanding of impacts of new developments (e.g. Brighton Transport Hub) and population and demographic changes (e.g. aging population) on freight and passenger transport along the Brooker	Analysis of travel demand information as it relates to the Brooker Highway, Main Road and the existing rail corridor including: <ul style="list-style-type: none"> - impact of the Brighton Transport Hub on freight volumes and vehicle type - Journey to work data from the Australian Census - Household Travel Survey information - Impact of passenger transport policies favouring public transport, walking and cycling - Impact of an ageing population 	Evidence-based approach to future planning utilising accurate, up to date trend data	LONG [ongoing]	HIGH
Other	<i>Accessing funding</i>	Clarify who and how funding bids are made under the National Network programme	Clarify roles direct with Australian Government	Improved certainty of process for funding applications and delivery	SHORT	MED
	<i>Domain Highway</i>	Not part of the National Network despite being a key connection to the Brooker and with high traffic volumes	- Review traffic volumes and growth to inform a future position on inclusion of the road in the Network	Inclusion of all major metropolitan road links in the National Network	SHORT	MED

Brooker Highway Transport Plan Project Location Map

