# Roadside Rest Areas Strategy for South Australia June 2008











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#### 1. Introduction

# 1.1 Purpose

This strategy sets the framework to develop rest areas as an effective tool for managing road safety issues associated with driver fatigue. It sets out the basis for a state-wide network of rest areas, providing regularly spaced and comfortable rest opportunities, to complement other opportunities available to drivers such as those within towns or at roadside commercial operations.

The policy direction and guidelines presented in this strategy have been developed with consideration for the National Transport Commission's, 'National guidelines for the provision of rest area facilities' (Nov 2005), and the operational requirements of key user groups and stakeholders, to ensure effective and responsible provision and management of rest areas in South Australia.

The direction proposed in this strategy builds on and supersedes the 2005 Roadside Rest Area Strategy for South Australia, prepared by the then Department for Transport and Urban Planning.

This strategy addresses South Australia's responsibility to an agreement by the Council of Australian Governments (COAG) at its meeting of the 10 February 2006, with regard to the provision of rest areas as part of a package of measures for addressing heavy vehicle driver fatigue.

The COAG package also requires legislative changes that will strengthen the onus on the road freight industry in managing driver fatigue. This heightens the need for rest area improvements, particularly on primary freight routes to enable heavy vehicle drivers' compliance with the new regulations.

A key aspect in adopting national guidelines is to achieve greater consistency between jurisdictions. Whilst it was acknowledged this is not always practical, due to differing road environments and classifications, every effort will be made to achieve consistency with other states.



# 1.2 Strategic Context

This strategy supports the objectives of South Australia's Strategic Plan in particular:

- The Improving Wellbeing objective for **road safety fatalities** that calls for a reduction in road fatalities to less than 90 per year by 2010(Target T2.9);
- The Improving Wellbeing objective for **road safety serious injuries** that calls for a reduction in serious injuries to less than 1000 per year by 2010(Target T2.10);
- The Growing Prosperity Objective for **strategic infrastructure** which calls for matching of national average in investment in key economic and social infrastructure (Target T 1.21)
- The Improving Wellbeing objective for **greater safety at work** which calls for a 40% reduction in injury by 2012 (Target T2.11).

It further meets South Australia's obligations under the Council of Australian Governments (COAG) agreement, of 10 February 2006, to a package of measures for addressing heavy vehicle driver fatigue. This package includes the following requirements relating to rest area provision:

- An audit of rest areas against national guidelines to be completed by July 2007. (This audit has been undertaken by the Austroads Road Safety Taskforce. It concluded that Western Australia and South Australia currently has lower than average levels of compliance than the other States.);
- Development of strategies for improved rest area provisions consistent with national guidelines by December 2007;
- Construction of rest area provisions by the end of December 2008;
- Preparation of a report to the Australian Transport Council (ATC) on the extent to which deficiencies in rest areas have been addressed by April 2009.

## 1.3 Key Objectives

The key objectives of this strategy are to provide clear direction and guidance for:

- Provision of appropriately located rest areas to reduce fatigue-related crashes
- Assist forward planning and investment decisions with regard to:
  - the types of roadside rest areas to be provided by the Department for Transport, Energy and Infrastructure;
  - spacing and location of roadside rest areas;
  - amenities provided within rest areas; and
  - rest area signing.



• Provide a framework for ongoing management of rest areas, including effective capture, storage and use of asset information.

With consideration of the requirements for the heavy vehicle road users, and the existing network of rest opportunities for other road users, a specific focus of this strategy is to address fatigue management issues for heavy vehicle drivers. Whilst the heavy vehicle driver will represent the key user group, the development and attainment of uniform standards for rest areas will have direct benefits for all road users.

Key improvement aspects include:

- Development of new rest areas in locations where current spacing does not meet strategy requirements;
- Improved safety of entry/egress through sealed shoulders, aprons, and acceleration/deceleration lanes if required;
- Installation of appropriate facilities (including shelters, tables, bins, lighting etc) to create functionally attractive spaces for road users to utilise outside of their vehicles;
- Installation of toilets in high demand rest areas;
- Resurfacing of poor pavements (sealed & unsealed as necessary) to create safe trafficable and hard stand areas;
- Fencing of rest areas to create clearly defined boundaries for rest areas, reduce impact of wind blown rubbish, and protect surrounding native vegetation;
- Improved distribution of rest area information (maps, electronic data, on-route signage etc).

# 2. Background

Fatigue is a significant issue for drivers in South Australia and particularly for those travelling long distances in our rural road environment. It is estimated that fatigue is the main contributing factor in approximately 25% of road crashes involving serious injury.

The provision of rest opportunities through rest areas represents a management tool in addressing fatigue-related crashes. A major challenge to realise the potential benefits of rest areas is to increase patronage by those road users travelling long distances.

The increased use of rest areas will depend largely on the quality of the rest area provided. The ability to maintain and provide a clean and attractive rest facility is considered a major factor in attracting and retaining their use by road users.

Historically rest areas in South Australia have been subject to a great deal of criticism by road users and representative groups. Common issues identified through consultation with regard to rest areas in South Australia include:

• Poor quality compared to other states both visually and functionally;



- Poorly maintained with particular issues being rubbish and damaged facility;
- Lack of toilets many rest areas have toilet paper and human waste present;
- Use of rest areas as sites for stacking aggregate;
- Lack of 'truck friendly' rest areas;
- Many rest areas are truck prohibited often when historically used by industry;
- Inappropriate size of rest areas not enough capacity for the required number of trucks/B-Doubles/Road Trains;
- For some rest areas it is necessary for road trains to turn across traffic to access the rest area, which is contrary to regulations for these vehicles.

This strategy attempts to address these issues.

A key component in the development of this strategy has been the level of understanding gained through consultation of the use of rest areas by the different user groups. This strategy attempts to take into account the key requirements of these different user groups, with the common aim of providing and encouraging greater use of rest areas for fatigue management.

Additionally, recognition of the importance of a comprehensive well planned and managed network of rest opportunities has also been achieved. This aspect should ensure that the provision of rest areas and the facilities in them are strategically assessed against user demand, and the key policy direction outlined in this document.

Key reasons why drivers break long distance trips have been identified as:

- toilet stops;
- food & drink;
- fuel; and
- rest (including regulatory requirements for Heavy Vehicle Drivers).

The provision of food and fuel at rest areas is not a function of the Department for Transport, Energy and Infrastructure and is a function generally readily available from commercial outlets along most rural routes.

As a result, the key use factors for stopping at DTEI roadside rest areas are:

- for an emergency toilet stop;
- to consume food they have with them; and
- to stop and rest.

# 2.1 Purpose of rest areas

DTEI rest areas are provided as a genuine fatigue management tool, and as such contain a level of facility to enable comfortable short term rest. These rest areas supplement other rest opportunities made available by commercial operations, and by local Councils within townships.



It is important to recognise that they are not developed as:

- Caravan parks;
- Playgrounds; or
- Parks.

It is acknowledged that there is a growing trend for tourist travellers (with a large percentage of new caravans and all motor homes being self contained) to 'free' camp in rest areas. Whilst overnight stays in rest areas are a genuinely acceptable method for fatigue management, stays longer than 24 hours are not encouraged.

Additionally, road users undertaking overnight stays in rest areas must accept that a minimal level of facility is provided for comfortable short breaks to manage fatigue. Road users seeking improved facilities for longer stays are encouraged to plan their journey to take advantage of available opportunities in towns and commercial facilities.

Furthermore, overnight campers in rest areas must also accept that they are likely to experience disruption through other road users, particularly heavy vehicle drivers, continuing to utilise the rest area facilities, for genuine fatigue management reasons, at any hour of the day or night.

## 3. Stakeholder Consultation

In developing this strategy a broad range of key stakeholders were consulted. These include:

- RAA;
- South Australian Road Transport Association (SARTA);
- South Australian Freight Council;
- Transport Workers Union SA;
- National Road Transport Operators Association (NatRoad);
- Australian Trucking Association;
- Motor Accident Commission;
- Campervan and Motorhome Club of Australia (CMCA);
- KESAB;
- SA Tourism Commission;
- Department for Environment and Heritage;
- Outback Areas Community Development Trust;
- Officers and elected members from Local Government; and
- A number of heavy vehicle drivers.

# 4. Targeted Highways

The focus for this strategy is on the primary freight routes within South Australia and other known long distance routes, including unsealed outback routes.



These routes are:

#### **National Network routes**

- Sturt Highway
- Dukes Highway
- Adelaide Port Augusta
- Eyre Highway
- Stuart Highway

#### **State routes:**

- Barrier Highway
- Riddoch Highway
- Mid North Freight Route\*
- Princes Highway
- Lincoln Highway
- Mallee Highway
- Pimba Roxby Downs
- Strzelecki Track
- Flinders Highway
- Crystal Brook Renmark (Goyder Highway)
- Birdsville Track
- Oodnadatta Track

# 5. Rest Area Types and Users

# 5.1 Categorisation of Long Distance Road Travellers

In understanding the demand and usage of rest areas, it has been necessary to analyse the key user groups for rest areas, specifically those on long distance trips.

Essentially there are three main categories of road user:

- Heavy Vehicle driver;
- Tourist traveller: and
- General road users.

Each of these categories has different motives for stopping, although all have a responsibility for effectively managing fatigue.

## 5.1.1 Heavy Vehicle Drivers

Heavy vehicle drivers **must stop**, by law, for defined period(s) on long trips to manage their fatigue. These stops may include 15 minute breaks for a respite and



<sup>\*</sup> Link between Adelaide-Pt Augusta road and Barrier Highway via Gladstone and Peterborough

possibly checking loads, meal breaks of between 30 – 60 minutes, and long breaks of 6 hours (intended for sleep)

With much of a heavy vehicle driver's schedule being driven by time constraints, including delivery schedules and the requirement for mandatory breaks, it is important for regular rest opportunities to be present on each route.

Gaining a better understanding of freight tasks from industry representatives has identified a number of locations where the demand for rest stops is high. These include:

- Within 1 hour of entry to Adelaide on the:
  - South Eastern Freeway;
  - Sturt Highway between Truro and Gawler;
  - Port Wakefield Road, between Port Wakefield and Gepps Cross.
- Approaches to Port Augusta (from all directions);
- Dukes Highway, between Tintinara and Bordertown;
- Sturt Highway, between Waikerie and the border

For extended breaks, ie 6 hours to overnight stays, heavy vehicle drivers generally prefer roadside rest areas rather than commercial facilities in towns. There is potential for this trend to increase in the future with drivers becoming more self sufficient in terms of food provisions etc. When staying for extended periods there is a need for toilet facilities and preferably water (for washing) at these sites.

For short breaks, heavy vehicle drivers use either commercial facilities or rest areas, depending on their location and situation in terms of driving schedule and personal needs (food, toilet etc).

## **5.1.2** Tourist Travellers

Tourist travellers are a diverse group of users. The category primarily comprises self contained travellers, with many travelling in campervans, motor homes and towing caravans. As a general rule this category of user has a **choice of when to stop**.

This category of traveller will often utilise rest opportunities in towns and commercial facilities, however they will also utilise roadside rest areas for:

- Food/Drink breaks;
- Toilet stops; and
- To manage fatigue.

Tourist travellers may also utilise rest areas for overnight stays. This appears to be an increasing trend, and whilst travellers are encouraged to utilise and support townships and commercial facilities, it is accepted that overnight stays in rest areas may sometimes be necessary to manage fatigue. However, any stays in excess of 24 hours are clearly against the intent for rest areas, and therefore should not be encouraged.



#### **5.1.3** General Road Users

General road users include residents of towns travelling to or from the City or other towns for work or shopping, or travellers with some other form of specific business along the route other than for tourism. While they have the flexibility to **choose to rest**, there is likely to be a desire to undertake a given journey as quickly as possible. The general road user therefore needs an incentive to stop and manage fatigue. It is considered that the aesthetics of a rest area, it being safe and clean with appropriate facilities, are critical components of this incentive.

General Road Users appear more likely to use commercial facilities for food and toilet, with rest areas providing an emergency or additional stop opportunity. It is considered that the current poor 'quality' and perception of rest areas may contribute to this behaviour.

# 5.2 Types of Rest Areas

Roadside rest areas provided by the Department for Transport, Energy and Infrastructure are located to complement the existing rest opportunities provided at commercial facilities and townships. The main different types of rest areas are:

- Major Rest Areas
- Minor Rest Areas
- Truck Parking Bays

Each type of rest area will include a basic level of facility including the provision of a shelter with picnic table and seats, and in most cases bins. They will also be developed and maintained in accordance with the principles outlined within this strategy. The key difference between the types of rest areas is in terms of capacity or size. In most cases each type of rest area will be accessible to all road users, with the main exception being a small number of minor rest areas where heavy vehicle access is not possible due to physical constraints of the site.

## **5.2.1** Major Rest Areas

These rest areas are intended to cater for long distance travellers in all user groups, including drivers of heavy vehicles, regular passenger vehicles and camper vans. Where possible major rest areas will define separate areas for heavy and light vehicle users.

It is expected that Major Rest Areas will be utilised as long stay rest opportunities for heavy vehicle drivers.

Major rest areas will have the following attributes:

- Sufficient capacity to store up to 20 B-Doubles at any one time;
- Contain facilities including:



- At least 2 separate shelter areas, with table and seating, separated from vehicle carriageways and easily accessible (disabled access);
- Bins for rubbish collection;
- Toilets:
- Lighting;
- Fencing of the rest area to contain rubbish movement, and protect surrounding native vegetation;
- An unsealed all weather pavement for parking of vehicles(high volume routes or rest areas with significant usage may have sealed pavement);
- A sealed carriageway through the rest area.

Where possible, Major Rest Areas shall be given a unique name. The name should be chosen to reflect the geographical location of the Major Rest Area. The naming of rest areas enables clear identification of rest opportunities, particularly in planning to manage rest areas.

#### **5.2.2** Minor Rest Areas

Minor Rest Areas are primarily designed to cater for short term rest breaks by all road users, and therefore include basic facility, in particular shelter, tables and seating.

Minor rest Areas subjected to high usage should be considered for providing additional facilities, such as toilets, lighting, and additional tables/shelters, however this will be determined on a case by case basis.

Minor rest areas must cater for up to 8 B-Doubles.

Some minor rest areas may have local constraining factors that limit the suitability for safe access for heavy vehicles. In these instances the rest areas will be signed as not suitable for trucks.

#### **5.2.3 Truck Parking Bays**

These rest areas provide the same facilities as the minor rest area; however the capacity is limited to approximately 4 B-Doubles. Whilst recognised as truck parking bays in terms of spacing and capacity, for all intents and purposes they are a rest area for all road users and will be signed accordingly.

For truck parking bays, a parking area (not including the end tapers) of 100 m x 9 m, is recommended to accommodate 4-6 trucks and maintain a "drive through" operation.

#### **5.2.4** Point of Interest sites

Parking areas provided for Point of Interest Sites will be established as needed, provided that the point of interest has sufficient value or interest to passing travellers. Walking trails from the parking area to a particular vantage point on nearby public or government property may be accommodated through agreement with relevant parties,



including the South Australian Tourism Commission, Local Government or landowners.

Where possible these sites will be incorporated into Major or Minor Rest Areas.

# 6. Roadside Rest Areas Design Elements

The layout of any rest area should be determined on a site-by-site basis, generally placing road user amenities towards the rear of the parking area, away from the road.

For larger sites, the creation of at least two separate areas, each containing tables and shelters is encouraged. This provides for the opportunity for different groups to separate if desirable.

When developing a rest area, consideration should be given to ensuring that the site layout or any structures are in keeping with the appearance and character of the surrounding area. Seeking appropriate landscape and/or architectural advice is recommended. Where possible consideration should be given to the inclusion of cultural information about the traditional owners of the land where the rest area is located.

Environmental concerns, such as native vegetation, including any disturbance during construction or maintenance and the effect of use of the rest area by the public must be considered and addressed.

It is important that a feeling of isolation is not created by totally screening the rest area from the road. Road users have commented that it feels unsafe to be totally removed from the adjoining road and that they are unlikely to use rest areas, which are completely visually obscured.

Rest areas which have a parking area close to the road should be fenced or a buffer of vegetation introduced to prevent pedestrians, particularly children, from wandering too close to high speed traffic.



## **6.1 Vehicle Access**

Rest areas should be developed to cater for traffic travelling in **one direction only**. Consequently, generally only left in left out access will be provided.

To improve the ability to accelerate and decelerate and to prevent loose material being tracked onto the roadway, a sealed apron should be provided at the access points, ideally extending at least 10-30 m into the rest area.

Vehicle access points should be developed in accordance with the appropriate road design standards.

## 6.2 Trafficable Area

The trafficable areas within any rest area shall be defined by different surface materials, vegetation buffers, fences or other physical barrier. Unrestricted vehicle movement onto other areas of the roadside surrounding the rest area must be avoided, particularly where significant roadside vegetation exists.

The parking area should be flat, clear and an all weather trafficable surface provided, suitable for the range of vehicles expected to use the rest area. Sealing the parking area within rest areas should be considered if necessary to control a dust problem or to minimise maintenance as a result of regular trafficking or weather conditions, primarily in high traffic volume locations.

The parking area at a rest area should be set back from the road to minimise the intrusion from road noise and possible headlight glare during night stops. The distance will vary from site to site depending on the surrounding environment and available roadside space.

## **6.2.1** Disability access

All rest areas and their facilities should allow for effective utilisation by disabled persons. Particular attention should be paid to the suitability of surfaces surrounding facilities, such as tables and seating, to enable safe and easy access to and around these facilities for disabled users.



## 6.3 Spacing

The National Transport Commission (NTC) guidelines recommend spacing requirements for the distances between varying classifications of rest areas. Based on these guidelines the recommended spacings for rest areas in South Australia are:

- Major Rest Areas every 100km intended for long stays;
- Minor Rest Areas every 50km intended for short breaks; and
- Truck Parking Bays every 30km. intended for short breaks/load check.

Rest areas may be located at closer distances where existing rest areas are unable to satisfy demand, and cannot be expanded due to local conditions.

Rest areas in towns including those provided by commercial operators should be taken into account when assessing rest area spacing.

State routes generally have lower traffic volumes, making the provision of major rest areas difficult to justify in most cases. These routes therefore will have a combination of predominantly Minor Rest Areas and Truck Parking Bays, with Major Rest Area facility provision restricted to those locations with a particular need.

Separate rest areas should be provided for each direction of travel.

# 6.4 Capacity

The capacity levels of the NTC guidelines have generally been adopted, with the exception of utilising B-Double's as the standard unit of measurement, rather than a semi trailer. Capacity for minor rest areas has been reduced to 8 instead of 10 to recognise the reduced traffic volumes and therefore lower demand on South Australia's roads compared to those in the eastern states (which provided the basis for the NTC guideline capacity determination).

Principles for assessing the capacity of rest areas in South Australia are:

- Use the B-Double as the standard unit of measurement:
- Major Rest Area approximately 20 vehicles;
- Minor Rest area approximately 8 vehicles;
- Truck parking bay 4 vehicles; and
- Rest areas should provide capacity for the major combination classification for the route, (i.e. B-Double in most cases, Road Trains for Stuart and Eyre Highways).

In assessing relevant capacity demands for a given location, specifically for new rest areas, it is important to consider any existing rest opportunities in the vicinity



including those in townships and commercial facilities, to establish the existing ability to meet the demand.

## 6.5 Joint Car/Truck rest areas

One of the greatest risks in enabling joint use of rest areas is in the potential for parking space for heavy vehicles to be reduced. This may be particularly evident in areas where camping in rest areas is common. It is therefore proposed to discourage long rest breaks by tourist travellers and general road users in strategically located rest areas that attract high heavy vehicle use.

Whilst this would reduce the options for long rest breaks for tourist travellers and general road users, it would not dismiss their fatigue management issues, as they can still rest for shorter periods and have more options than heavy vehicle drivers for long rest breaks. It is considered that this approach will provide increased confidence of the availability of spaces for heavy vehicles, as the greatest risk category.

Improved road signage and promotion of where trucks and cars can park within rest areas would also help reduce possible confusion and conflict between user groups.

Other key elements for the management of joint use in rest areas include:

- Better promotion of truck priority/suitable rest areas to ensure all road users are aware that some sites experience higher usage by heavy vehicles.
- Develop maps of rest areas specifically for heavy vehicle drivers (eg by highlighting the rest area opportunities available to them)
- Allow for shared car/truck facilities at minor rest areas
- Allow short term rest of light vehicle users in 'truck priority' rest areas
- Develop and apply consistent criteria for prohibiting trucks from rest areas that cannot be made to satisfy the appropriate standards for truck access, particularly in terms of sight distance, entry/egress safety, size and design of rest area.

## 6.6 Use as stacking sites

Rest areas have historically been subject to joint use as stacking sites for aggregate. It is also common for stacking sites to be used, and mistaken for rest areas at times when not being fully utilised for the storage of aggregate.

Rest areas shall not be utilised as stacking sites.



# 7. Facilities to be provided Within Rest Areas

A summary of the features of the different types of rest areas and facilities that should be provided is indicated in Table 7.1 on Page 31. The main facilities are discussed below.

#### 7.1 Tables/Shelters

All rest areas must provide a suitable area for people to sit comfortably out of their vehicle.

To achieve this, all rest areas will have table and seat facilities. Ideally tables should be sheltered from the elements, either by natural shade, or a man made shelter.

It is expected that facilities shall be similar to those shown in the photos below:





## **7.2** Bins

Rubbish collection represents one of the major components in the management of rest areas. Key issues are the physical collection of rubbish, and the spreading of waste often caused by animal foraging or littering by motorists.

Whilst bins will be provided in the majority of rest areas, as a general rule they will not be provided in minor rest areas and truck parking bays in remote areas. This is due to the remoteness of these locations, and the risk to native animals through foraging in bins.

In determining the style of bin to use, consideration should be given to plastic wheelie bins, and possible incorporation into local waste collection services. Essentially bin style should be considerate of local conditions.

It is proposed to encourage travellers to 'take their rubbish with them' for depositing in an appropriate facility in the next town or commercial centre.



In remote areas, the Department for Transport, Energy and Infrastructure, will engage with appropriate commercial businesses in nearby towns to seek support for bins to be made available within the towns for travellers to deposit rubbish. This may involve cost sharing of rubbish collection and dumping costs.

Rest areas on rural roads may also have bins removed on a case by case basis, dependant on the availability of suitable dumping opportunities, or the amount of excessive household dumping.

The Department for Transport, Energy and Infrastructure will seek to collaborate with KESAB in furthering anti - litter initiatives, possibly through a direct program for a car tidy bag scheme.

A trial of providing a separate 'bin' for recyclables will be undertaken in certain locations, with the aim of both encouraging recycling, and reducing the likelihood of foraging through existing bins for recyclables.

#### 7.3 Toilets and Showers

All Major Rest Areas shall contain toilets.

High use minor rest areas should also be considered for the installation of toilets, if:

- demand for long rest breaks is evident, and there is a consequent need to minimise health risk from the prevalence of human waste,
- suitable alternative toilet options are not available, and
- ongoing management of toilets can be sustained.

Where reticulated water supply is available, specifically in high usage rest areas, a septic style flushing toilet should be provided. This option represents the most economical approach when considering ongoing maintenance implications. Arrangements must be available for regular cleaning etc.

In all other circumstances, the preference is for toilets to be a waterless operation, with actual design to be determined with consideration for local environmental factors; however it is recommended that a simple long drop system may be most suitable.

Prior to any installation of toilets in a rest area, a maintenance plan must be developed, with careful consideration of cleaning, vandalism, disposal of syringes and cost factors. A specific contract, or clauses within the general maintenance contract, must be included to ensure appropriate standards of cleaning and maintenance are maintained.

Showers will not be provided in DTEI rest areas in future.



# 7.4 Lighting

Lighting is considered to provide additional security for travellers. Evidence indicates that solar powered lights on the Stuart and Barrier Highway have been quite successful, with placement a key to prevent vandalism and theft (a problem evident in other states).

Lighting will be included in all Major Rest Areas, positioned adjacent to toilet facilities, and shelters. Lighting should also be provided to at least one shelter.



Primary consideration should be for a solar light configuration, subject to a risk assessment on possible theft and vandalism threats that a site may present, and the satisfaction of appropriate minimum lighting standards.

High use minor rest areas should also consider installation of lighting.

## 7.5 Vehicle Shade

Where possible, rest areas should enable natural shade to be utilised. This should be done in such a way that the integrity of trees and vegetation is protected as much as possible by, for example, not enabling parking too close to root zones.

Additionally, landscaping should enable the long term development of natural shade, subject to local conditions.

Construction of artificial shade structures for vehicles is not a requirement of this strategy.

It is acknowledged that vehicle shade, particularly in remote locations with extreme temperatures, is of importance for vehicle drivers, and may have an impact on the quality of any rest in that environment. However, it is considered that the responsibility currently rests with owners/drivers to appropriately manage this risk for occupational health and safety reasons.

Should a potentially efficient and cost effective solution be identified, the Department will revisit the matter.



# **7.6** Sealed pavement

The NTC national guidelines do not specify that all major rest areas should be sealed and line-marked.

In South Australia the minimum requirement for major rest areas is that the carriage ways should be sealed. Consideration should also be given to sealing the parking areas of major rest areas where high use causes a maintenance burden and/or where dust may be a factor for nearby residents/businesses.

For minor rest areas and truck parking bays all weather hardstand areas should be provided. Unsealed carriageways and parking areas should be constructed of a material that minimises dust.

The use of recycled material for rest area surfaces is encouraged.

## 7.7 Water

Major rest areas shall provide water (not drinking), through the provision of a rainwater tank with collection from adjacent shelter/toilet buildings.

Mains water will not be connected, even if available, unless as part of a toilet septic system.

All tank water will not be maintained to drinking standard and therefore shall be signed "not for drinking".

# 7.8 Fireplaces

South Australia is generally a high fire risk environment, and has a fire restriction season that covers over half of the year.

In addition to the potential bushfire risk, it is considered that the provision of fireplaces within rest areas is likely to result in environmental damage to surrounding vegetation in attempts to source wood.

Due to these key risks, fireplaces will not be provided in roadside rest areas.

# 7.9 Fencing

All rest areas shall be fenced to clearly define the rest area, control wind blown rubbish, contain the rest area to a limited space, and reduce accessibility to surrounding native vegetation.

Exemption from this requirement shall be available where fencing is likely to fail to meet the intended objectives, or where other factors lead to fencing being not viable.



## 7.10 Tourist Information

The provision of tourist information is encouraged in selected rest areas, to provide motorists with interesting information on the region and its attractions. The information will add interest to rest areas and attract more motorists to take regular driving breaks, reducing the risk of fatigue.

## 8. Use of town facilities/commercial service centres

Rural towns provide a major rest opportunity for tourist travellers and general road users; however the following key issues are essential when considering use of towns as a major rest area for heavy vehicles:

- That towns be regarded as major rest areas for heavy vehicles so long as they have suitable parking opportunities for the necessary number of heavy vehicles (20);
- That 'by-passed' towns be removed from consideration as a rest opportunity for heavy vehicles, unless it is an accepted stop for heavy vehicles;
- That commercial and township service centres that provide 'reasonable' operating hours (ideally 24 hour service), be considered as a rest opportunity;
- Any development of Departmental rest areas for heavy vehicles within town limits must have the support or approval of the local council/community.

Commercial Service Centres/Truck Stops provide a valuable rest opportunity for all road users, specifically for heavy vehicle drivers. These areas are essentially designed for this market and provide large hard stand areas for a large volume of trucks.



(Mobil – Tintinara on the Dukes Highway)



With increased focus on the provision of rest opportunities and the predicted increase in the freight task, it is likely that additional commercial developments will occur in the future.

It is acknowledged that commercial factors will drive potential locations. Consideration of demand on the route and existing adjacent rest opportunities should be undertaken when commenting on any proposed developments.

Further, consideration should be given to the provision of an appropriate parking facility directly opposite the service centre (at the developer's cost) to manage vehicle flow around the development. Evidence shows that drivers often park directly opposite service centres, and walk across the road to access food/toilets in short breaks (eg at Bungama BP Roadhouse near Port Pirie and Mobil Roadhouses at Tintinara and Tailem Bend).

# 9. Involvement of Other Organisations

The Department for Transport, Energy and Infrastructure shall remain the principal authority responsible for the operation of any rest area developed within the road reserve (unless this responsibility is taken up by local government). circumstances it may be beneficial to share the costs for establishment or management with other authorities or organisations to provide a more attractive rest opportunity, or maintain the rest area at a higher standard.

Opportunity exists for the Department for Transport, Energy and Infrastructure to work with other organisations with the view to improving rest area maintenance. This may include possible initiatives such as expanding the Roadwatch program to assist with the rest area maintenance and management, and for touring groups (such as caravanning groups) engaging in an occasional clean-up service of rest areas used on their trips. Additionally these relationships will provide important information to the Department with regard to ongoing management of rest areas, in particular in terms of maintenance and cleanliness, directly from road users.

Where a Local Authority or Service Club wishes to become involved with the management and/or maintenance of a rest area a formal agreement shall be prepared which clearly defines:

- a) the extent and boundaries of responsibilities of the relevant parties;
- b) provisions for the establishment, ongoing operation and termination of the involvement of the Local Authority or Service Club as the sponsor(s);
- c) arrangements for the construction, ongoing maintenance or removal (in the event of withdrawal of the sponsorship) of sponsor related structures or facilities



Structures or additional facilities (such as information boards) installed within the rest area by the sponsor must be relevant to road users, the local area or a small acknowledgment of sponsorship.

# 10. Information to Road Users

Fatigue management is essential for the safe completion of all road journeys. And therefore is an issue for all road users.

Given the importance of effective fatigue management, it is critical for road users to be provided with appropriate information on the risks of driving whilst fatigued, the symptoms of fatigue, and importantly, the available strategies for managing fatigue.

Reinforcement of the importance of rest areas, and information on their use and location, will continue to be included in the fatigue management material maintained by the Motor Accident Commission.

Within a rest area context the key challenge is to inform road users of the availability and location of potential rest opportunities for a given route.

This information should enable pre-trip planning, through tools such as rest area maps, and fatigue messages, and on-road information, including advance notice signs for rest area locations and fatigue warning signs to enable in transit management of fatigue.

Distribution of the key fatigue message could include collaboration with the following organisations to utilise their established distribution channels:

- RAA:
- South Australian Road Transport Association (SARTA);
- Campervan and Motorhome Club of Australia (CMCA); and
- KESAB.

Exploration will be undertaken to assess the potential to improve the range of formats of rest area information to include:

- Web based route information;
- Distribution to mapping authorities/organisations; and
- Incorporation of data into satellite navigation equipment (Navman/TomTom etc)

Additionally, improved disbursement of rest area maps, possibly through availability at:

- Driver reviver events;
- Service stations;
- Shows/motoring or camping events;
- SAPOL; and



• Tourist information centres.

Improved signage/messages within rest areas are also considered options for presenting the fatigue and associated road safety messages.

# 11. Community/Local Information Bays

Information Bays are generally located on the outskirts of towns and provide information on local community services and general information on the town or local area.

The Department for Transport, Energy and Infrastructure shall not take responsibility for providing infrastructure, management or maintenance of the trafficable surface or other structures provided within an Information Bay. Assistance may be provided to resolve road safety issues associated with Information Bays. Information Bays should typically be the responsibility of Local Government (or appropriate community group).

The Department for Transport, Energy and Infrastructure shall provide and maintain the shoulder crossover to the Information Bay where the road is unkerbed, as well as the appropriate Information Bay advisory signs located alongside the Department for Transport, Energy and Infrastructure roads on the outskirts of towns. The signs provided shall be as per AS1742.6.

## 11.1 Driver Reviver Events

Driver reviver stations are typically run by community organisations during long weekends (or other peak times) when the level of touring traffic is expected to increase.

The Department for Transport, Energy and Infrastructure supports the use of established roadside rest areas as driver reviver locations.

# 12. Signing of Rest Areas

#### 12.1 On road

Consistent reminders on both the dangers of fatigue and the availability of rest opportunities along a given route area is considered important in assisting road users to effectively manage their fatigue.



A key approach aimed at achieving the distribution of information on-route is through the use of advance 'reassurance' signs, incorporating details of the next 3 rest opportunities (including towns).



Example of NSW reassurance sign

Advance 'reassurance' signs shall be installed on all National Network routes.

Additionally, reassurance signs shall be installed on the Barrier Highway due to its remote location and long distance.

Consideration should be given to installing reassurance signs on high volume state routes, however many state routes benefit from townships and commercial facilities being provided at regular intervals.

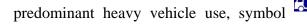
It is required that the current approach of providing indicating signs 1km and 400m in advance of rest areas, be maintained.

All rest areas will be signed using the symbol to signify its suitability for all road users. Rest areas with design limitations that prohibit heavy vehicle use shall be

signed as 'not recommended for trucks'



For rest areas with significant or





separate light and heavy vehicle zones shall be signed with both the and symbols.







Other on road considerations may include the installation of fatigue related pavement treatments adjacent to signage and rest areas, such as vibraline and or alternative surface treatments. Further investigation into the likely benefit of this approach will be undertaken, with the potential for inclusion of treatments more universally accepted in future strategy documents.

## 12.2 Within rest areas

An opportunity exists to present relevant road safety and route specific information to road users within a rest area.

It is considered that whilst road users are stopped in a rest area, they are likely to look at information/signage provided. Additionally the presence of visually stimulating signage is likely to encourage road users to get out of their vehicles, providing valuable exercise and fresh air.

Major and minor rest areas will have improved internal signs, with a specific focus on:

- Highlighting road safety messages fatigue/speed;
- Advising if the rest areas is a high use site by heavy vehicles; and
- Indicating future route rest opportunities and nearby points of interest.

Internal directional signs may be required in large rest areas, to assist drivers to know where suitable parking spaces are located.

# 13. Asset Management

This strategy acknowledges that a key component for the success of rest areas as a fatigue management tool is related to effective and ongoing management of these valuable assets.

# 13.1 Data storage and use

A critical component in effectively managing rest areas as an asset class, relates to the collection, storage and maintenance of rest area related data.

As part of the development of this strategy, extensive data was collected on the state's rest areas. It is proposed that this collected data will form the basis for a more strategic approach to management of rest areas, with a process developed to ensure future improvements are captured within a central rest area asset management data set.

The development of this information is considered necessary to enable better informed decision making for rest area development and maintenance.



Additionally, appropriate storage of this asset information will assist in possible future uses of the information, including:

- Development of online display of rest area locations;
- Provision of data to mapping organisations;
- Development of downloads for satellite navigation equipment (Navman, TomTom etc).

#### 13.2 Maintenance

The Department for Transport, Energy and Infrastructure will continue to pursue means to achieve an improved level of service to meet the standards expected by the public, and to maintain increased infrastructure within rest areas, specifically toilets.

Considerations include:

- Improving the contract management of rest area maintenance, with a specific focus on pothole and pavement repairs.
- Explore the possible establishment of separate maintenance contracts for rest areas.
- Require Major Rest Areas to be cleaned and maintained under a separate specification (contract).
- Consider the impact of seasonal/holiday volumes on maintenance/cleaning requirements.

Under the activity specifications of the Department for Transport, Energy and Infrastructure maintenance contracts, Contractors are required to:

- empty litter bins on a regular basis (eg weekly or fortnightly), which are not permitted to overflow, and to clear the rest areas of general litter.
- undertake maintenance work on amenities provided in rest areas (including tables, sun shelters, water tanks and other Department for Transport, Energy and Infrastructure provided and/or owned structures).
- maintain the trafficked surfaces within the rest area in a safe and trafficable condition.

As part of the improvement program associated with the implementation of this strategy, it is proposed that additional funding of \$170,000 per year over 4 years, be allocated specifically for the maintenance of rest areas.

# 14. Implementation

In a South Australian Government initiative, a fund of \$10m was allocated in its 2007/08 budget for a program of rest area improvements to be implemented over 4 years.

More recently, the Australian Government has also indicated, in its 2008/09 budget, that funds will be made available for rest area improvements on the National Network



from its \$70m 'Heavy Vehicle Safety and Productivity' program. How these funds will be distributed between the State's is currently being determined. In the meantime, rest area improvements are being implemented as part of AusLink projects on the National Network.

Using this Strategy as a basis, a program of works is being developed to enable rest area provisions in South Australia to meet National guidelines. The improvement needs that the program aims to address have been determined after a comparison of current rest area provision in South Australia compared to the new strategy. These needs are broadly identified in Attachment 1 for each of the main freight routes in South Australia and are expected to result in the need for:

- Approximately **50 new rest areas/truck parking bays** in locations where current spacing does not meet strategy requirements;
- Improvement to the **majority of existing rest areas**, incorporating:
  - Improved safety of entry/egress through sealed shoulders, aprons, and acceleration/deceleration lanes if required;
  - Installation of appropriate facility (including shelters, tables, bins, lighting etc) to create functional attractive spaces for road users to utilise outside of their vehicles;
  - Resurfacing of poor pavements (sealed & unsealed as necessary) to create safe trafficable and hard stand areas;
  - Fencing of rest areas to create clearly defined boundaries for rest areas, reduce impact of wind blown rubbish, and protect surrounding native vegetation.

In prioritising these improvement needs to develop a program of works, emphasis is being given to:

- High volume routes, particularly in terms of their freight transport role.
- Routes with the greatest deficiency, particularly in terms of spacing; and
- Known demand locations.

## 15. Further Information

For further information relating to this Roadside Rest Area Strategy please refer to:

Manager, Traffic and Access Standards The Department for Transport, Energy and Infrastructure 33-36 Warwick Street, Walkerville 5081 Telephone: 8343 2400



# 16. Bibliography

- 1. National guidelines for the provision of rest area facilities, final report (Nov 2005), National Transport Commission (prepared by ARRB Transport Research P/L.
- 2. Roadside Rest Area Strategy for South Australia (March 2005), Department for Transport and Urban Planning.
- 3. RTA (NSW), Rest Area Best Practice Design Guide (February 2004)
- 4. AS1742.6, Manual of Uniform Traffic Control Devices, "Part 6: Service and Tourist Signs for Motorists".
- 5. AS 1742.2, Manual of Uniform Traffic Control Devices, "Part 2: Traffic Control Devices for General Use".
- 6. Charlesworth, K (1986), "The Use of Road Shoulders by Stationary Vehicles", 13<sup>th</sup> ARRB/5<sup>th</sup> REAAA.
- 7. Cockshutt, T (1997), "Rest Areas on the National Highway System: A Discussion Paper" written on behalf of the Federal DoTRD.
- 8. Queensland Main Roads, Road Planning and Design Manual, Chapter 20 "Roadside Amenities" (March 2002)
- 9. "National Road Safety Action Plan", (1996).
- 10. Northern Territory Department of Transport and Works (1998), "Roadside Rest Areas Discussion Paper".
- 11.RAA, March 1997, "Roadside Rest Areas, Road Users' Needs and Expectations".
- 12. South Australian Tourist Commission, 1996, "Tourist Sign Posting Policy".
- 13. Symonds Travers Morgan (1997), "Review of Rest Areas and Associated Facilities", report prepared for Main Roads Western Australia.
- 14. VicRoads, "Guidelines for Rest Area Facilities".



**Table 7.1 Features of Rest Areas** 

FEATURES OF REST AREA	TYPE OF REST AREA		
(Key Requirements)	Major	Minor	Truck Parking Bay
Capacity	20 B-Doubles	8 B-Doubles	4 B-Doubles
Litter Bins	Y	Y if necessary	Y if necessary
		(not essential in	(not essential in
		remote areas)	remote areas)
Picnic Tables	Y	Y	Y
Seating	Y	Y	Y
Shelter	Y	Y	Y
Shade	Y if possible	Y if possible	Y if possible
Water	Y	Y if necessary	Y if necessary
Toilet	Y	Y if necessary	N
Sealed Bay	Y if necessary	Y if necessary	Y if necessary
Sealed	Y	Y if necessary	Y if necessary
Carriageway			
Sealed Shoulders	Y	Y	Y
Sealed Aprons	Y	Y	Y
(10m +)			
Separate	Y if possible	Y if possible	N
parking zones (Truck/cars)			
Playground	Y if necessary	N	N
Fireplaces / BBQ Facilities	N	N	N
Lighting	Y	Y if necessary	Y if necessary
Emergency Phone	Y if necessary	Y if necessary	Y if necessary
Acceleration Lane	Y if necessary	Y if necessary	Y if necessary
Deceleration	Y if necessary	Y if necessary	Y if necessary
Lane Foreag/Porriors	V	V	V
Fences/Barriers Tourist	Y Y	Y if management	Y N
Information (if appropriate)	ĭ	Y if necessary	IN
Road Safety/Route Signing	Y	Y	Y if necessary
1km advance sign	Y	Y	Y if necessary
400m advance sign	Y	Y	Y
Entrance sign	Y	Y	Y

Route Description	Main Route Deficiencies	Main Improvement Needs (indicative only, and subject to more detailed investigation and planning)
National Network		
Dukes Highway		
Primary freight route to Melbourne. A majority of heavy vehicle freight tasks being long distance, representing a high risk for fatigue issues. Generally a high CV% (33%).  Sturt Highway	Minor spacing deficiencies – eastbound.  Towns service majority of demand.  Capacity is generally acceptable for current demand.  Poor visual aesthetic and functional amenity in many rest areas.	Improve pavement.  Define specific facility zones in large rest area.  New rest areas: MM40 L; MM75 L.  Installation of required facility (shelters/tables etc).  Upgrade MM75 (R) to major status (toilets etc).
Primary freight to Sydney and Brisbane. A majority of heavy vehicle freight tasks being long distance, representing a high risk for fatigue issues. Generally a high CV% (20 - 25%).	Spacing issues - Waikerie – Yamba. Capacity is generally acceptable. Poor visual aesthetics and functional amenity.	Improve pavement. Define specific facility zones in large rest area. New rest areas: MM225 L/R; MM191 L; MM111 L. Installation of required facility (shelters/tables etc). Upgrade MM191 R and MM 85 R to major status (toilets etc).
Stuart Highway		
Major freight & tourist link with Darwin. Road Train route. All heavy vehicle freight tasks involve long distances and represent fatigue risks. Low traffic volume – high CV%.	Several spacing deficiencies, with many current distances being over double the recommended distance.  Capacity is generally acceptable, although with a predominance of triple road trains, capacity is an issue if several choose to stop in one location.  Poor visual aesthetics and functional amenity.  Facility upgrades required for areas for truck use.  Many rest areas not conducive to use by heavy vehicles.	Improve pavement.  Define specific facility zones in large rest area.  Ensure availability for heavy vehicle use where possible.  New truck parking bays: MM31 R; MM105 R; MM200 L&R MM340 L&R MM436 R; MM579 L; MM670 L; MM715 L&R.  Installation of required facility (shelters/tables etc).  Significant Upgrade MM715 (toilets, lighting etc).



National Highway 1 (Adelaide – Pt Augusta)  Major freight and tourist link with Darwin, Perth and Outback SA. Road Train route.  Majority of heavy vehicle freight tasks involve long distances and represent fatigue risks.  Moderate traffic volume – high CV%.	Spacing deficiencies Port Augusta – Lochiel – both directions.  Capacity of existing rest areas generally acceptable, although high demand areas appear deficient.  Limited rest areas for heavy vehicles.	Improve pavement. Define specific facility zones in large rest area. New rest areas: MM30 L&R MM95 R; MM130 L; MM165 L; MM280 L. Installation of required facility (shelters/tables etc). Ensure availability for heavy vehicle use where possible. Significant Upgrade MM121 R; MM247 L (possible toilets, lighting etc).
Eyre Highway  Major freight link with Perth. Road Train route.  Majority of heavy vehicle freight takes involve long distances and represent fatigue risks.  Low traffic volume – high CV% (32%+).	Spacing deficiencies Port Augusta – Wudinna. Capacity of existing rest areas generally acceptable. Very little facility in existing rest areas.	Improve pavement. Define specific facility zones in large rest area. New rest areas; MM230 R; MM390 R;MM465L; MM720 R; MM865 R; MM900 L. Installation of required facility (shelters/tables etc). Ensure availability for heavy vehicle use where possible. Significant upgrade to 2 sites (lighting etc).
SE Freeway (Adelaide – Tailem Bend)  High Volume route. Adel – Mount Barker: 24000-45000 vpd (CV% - 10%) approx 2000-3000 trucks per day.  Mt Barker - Tailem Bend: 7400 – 10600 vpd (CV% - 22%) approx 2000 trucks per day.	Acceptable spacing. Acceptable capacity – although inbound rest areas subject to high demand (limited ability to increase size due to geographic aspects). No facility (shelters/tables/seating).	Improve facility – specifically provision of tables and shelters (inbound a priority).  Consider expansion and provision of toilets MM59  L&R.



State Highways			
Riddoch  Highest volume state route – 17%CV Combination of short and long distance journeys, however distance from Adelaide indicates a significant percentage of journeys will be long distances representing fatigue risks.	Several spacing deficiencies. Limited capacity in many rest areas. Limited facility.	Improve pavement. Ensure capacity requirements are met. New rest areas: MM99 R; MM173 L Significant Upgrade to 2 sites (lighting etc). MM84; MM147R Installation of required facility (shelters/tables etc). Ensure availability for heavy vehicle use where possible.	
Princes  Primarily a tourist route.  Around 1000 vehicles per day – 15% Commercial Vehicles.  Combination of short and long distance journeys, with the long distances representing fatigue risks.	Several spacing deficiencies. Limited capacity in many rest areas. Limited facility.	Improve pavement. Ensure capacity requirements are met. New rest areas: MM25 L; MM84 ?R; MM125R; MM170 L. Installation of required facility (shelters/tables etc). Ensure availability for heavy vehicle use where possible. Significant upgrade to 2 sites (lighting etc).	
Mallee  Low volume route – 25-30% CV.  Link to Central Victoria – alternative route for journey to NSW/QLD.  Majority of heavy vehicle freight tasks involve long distances and represent fatigue risks.	Minimal spacing deficiencies. Capacity generally acceptable.	Improve pavement; Entry/egress points safety improvement New rest areas MM120 L&R Installation of required facility (shelters/tables etc); Ensure availability for heavy vehicle use where possible; Significant upgrade to (lighting,etc): MM74L; MM76R.	



Lincoln  Low volume route – approx 20% CV.  Link between Port Lincoln and Adelaide.  Tourist and Freight route.  Majority of heavy vehicle freight tasks involve long distances and represent fatigue risks.	Several spacing deficiencies, although many linked to capacity issues and the previous use of towns off route (ie bypassed towns).  Many sites have limited capacity to meet strategy requirements.	Improve pavement; Entry/egress points safety improvement New rest areas: MM 36 L; MM65 L; MM185 L; MM260 L;MM275 R; MM295 L. Installation of required facility (shelters/tables etc). Ensure availability for heavy vehicle use where possible. Significant upgrade to MM97L (lighting,etc).
Flinders  Low volume route – approx 15% CV.  Link between Port Lincoln and Ceduna.  Tourist and Freight route.  Majority of heavy vehicle freight tasks involve long distances and represent fatigue risks.	Several spacing deficiencies); Many sites have limited capacity to meet strategy requirements; Lack of shade/shelters.	Improve pavement; Entry/egress points safety improvement. New rest areas: MM 30 L; MM71 R; MM139 R; MM268 L; MM302 R. Installation of required facility (shelters/tables etc). Ensure availability for heavy vehicle use where possible. Significant upgrade to MM66L (lighting,etc).
Goyder  Low volume route – 20% CV.  Link between Sunraysia/Riverland and mid north & Western Australia.  Majority of heavy vehicle freight tasks involve long distances and represent fatigue risks.	Minimal spacing deficiencies. Capacity generally acceptable.	Installation of required facility (shelters/tables etc). Ensure availability for heavy vehicle use where possible.
Mid-North Freight Route  Low volume route – Medium % commercial vehicles (15-20%)	No rest opportunities for heavy vehicles.	Develop new rest areas: MM001 L& R; MM26 L&R (south of Mannanarie Junction).



Road Train Route. Link for Perth/Sydney/Brisbane - Majority of heavy vehicle freight tasks involve long distances and represent fatigue risks.		
Barrier  Low volume route – High % commercial vehicles (25%).  Road Train Route.  Link for Perth/Sydney/Brisbane - Majority of heavy vehicle freight tasks involve long distances and represent fatigue risks.	Some spacing deficiencies – particularly from Burra – Adelaide. Capacity generally acceptable.	Improve pavement; Entry/egress points safety improvement New rest areas: MM 184 L; MM240 R, MM358 L. Installation of required facility (shelters/tables etc). Ensure availability for heavy vehicle use where possible. Upgrade to MM184 R (lighting,, toilets etc).
Primarily a tourist route – although significant percentage of commercial vehicles (16%) servicing mining operations in the Cooper Basin region (Moomba).  Majority of heavy vehicle freight tasks involve long distances and represent fatigue risks.	Spacing deficiencies. Minimal/no facility.	Develop new rest areas to meet minimum spacing requirements.
Birdsville  Iconic tourist route.  Majority of heavy vehicle freight tasks involve long distances and represent fatigue risks.	Some spacing deficiencies. Minimal facility.	Develop new rest areas to meet minimum spacing requirements.
Port Augusta – Marree  Key link to outback freight and tourist routes  Majority of journeys involve long distances and	Spacing deficiencies. Minimal rest areas & facility.	Develop new rest areas to meet minimum spacing requirements.



represent fatigue risks.		
Oodnadatta Primarily a tourist route. Majority of journeys involve long distances and represent fatigue risks.	No current rest areas.	Develop new rest areas to meet minimum spacing requirements.
Pimba – Roxby Downs  Key freight link to mining operations at Roxby Downs.  Majority of heavy vehicle freight tasks involve long distances and represent fatigue risks.	No current rest areas.	Develop 2 new rest areas MM40 L&R.



The general opinion of the draft strategy was positive, with all parties supporting the approach.

SARTA's main comments related to location of the improvements and priority, rather than the strategic direction.

Industry groups praised the adoption of B-Doubles as the standard for measurement of rest area capacity.

## Other issues raised were:

Issue	Raised by	Action
Shade for Truck Cabs	ATA	Acknowledged that this was an issue
Request for man made shade	Natroad	within the Strategy. No solution
structures in the absence of tree		proposed at this time due to the
shade.		difficulty justifying the high
		expenditures involved.
<u>B-Triples</u>	ATA	Not directly addressed in strategy,
Sought consideration of	Natroad	however all new designs and revised
implications of B-Triples for		entry/exit points on existing rest areas
rest areas on National Network.		will be considered for installation of
		B-Triple turn paths on a case by case
		basis.
<u>Traffic volume as a criterion for</u>	RAA	The traffic volume criterion has been
determining the need for a		removed altogether from the Strategy.
Major Rest Area.		
It was requested that the		The Strategy indicates that extra
minimum traffic volume		facilities such as toilets and lighting
indicated in the draft strategy as		will be included in Minor Rest Areas
the criterion for development of		where there is a clear need on a case
a Major Rest Area be lowered.		by case basis.
This request resulted from the		
desire to see more rest areas		
with extra facilities such as		
lighting and toilets.		
Bins	KESAB	The Strategy indicates that bin style
A review of bin styles was		will be determined by local
requested.		conditions, with the most efficient and
Separation of recyclable		effective style being adopted.
'rubbish' was also requested		Separation of recyclable 'rubbish' will
		be tested in appropriate locations.