



Rest Area
Heavy Vehicles

*Guidelines for the
Rest Area Program
(Bruce & Warrego Highways)*

Nation Building Program (2009-10 to 2013-14)

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1. Background

The Australian Government made a 2007 election commitment to provide additional rest areas in two sections of Bruce Highway and a section of Warrego Highway. The commitments are as follows:

1.1. **Bruce Highway**

➤ **Childers to Sarina**

On 6 November 2007, Martin Ferguson AM MP, Shadow Minister for Transport, Roads and Tourism, and Kirsten Livermore MP, member for Capricornia, announced a major election commitment for the Childers to Sarina section of the Bruce Highway. As part of the total package, the joint media release stated:

“Lack of stopping places means motorists keep driving when they should take a break, so Labor will invest \$20 million to construct 6 new rest areas, 8 vehicle stopping places and audible edge lines.”

➤ **Sarina to Cairns**

On 5 November 2007, Martin Ferguson AM MP, Shadow Minister for Transport, Roads and Tourism, and George Colbert, Labor Candidate for Herbert, announced \$1.1 billion to for the Bruce Highway from Sarina to Cairns. As part of the package, the joint media release stated:

“Lack of stopping places means motorists keep driving when they should take a break, so Labor will invest \$5 million to construct four new rest areas, five vehicle stopping places and audible edge lines.”

1.2. **Warrego Highway**

On 20 November 2007, Martin Ferguson AM MP, Shadow Minister for Transport, Roads and Tourism, and Mike Bathersby, Labor Candidate for Maranoa, announced \$55 million for the Warrego Highway. As part of the package, the joint media release stated:

“Lack of stopping places means motorists, especially truckies, keep driving when they should take a break. That’s why Labor will invest \$5 million to construct six new rest areas, six heavy vehicle stopping places and audible edge lines.”

2. Purpose of the Guidelines

The purpose of these guidelines is to provide guidance to regions regarding the Program Development, Program Governance, Program Management and Project Proposal Report (PPR) Process to develop and select projects for the rest area bulk funding as part of the Nation Building Program.

3. Overview of Process

Rest Area Program cycle is as follows:

- Road Freight Strategy (RFS) undertake an assessment of the rest area, stopping place and audio tactile line marking (ALTM) needs.
- Director (National Programs) calls for project nominations for Rest Areas and Stopping Places from regions based on the documented outcomes of the RFS assessment.
- Regions peruse the listings and compare against local assessment of requirements then provide updated locations including facilities to be incorporated and estimated costs to provide the sites based on site specific requirements.
- Draft PPR's including recommended rest area, stopping place and ATLM projects (with further consultation with regions as required) is developed.
- The Steering Committee (listed in Section 6 of these guidelines) reviews and endorses the program of works.
- PPR's are finalised and will incorporate the full program of works for rest areas, stopping places, and potential ATLM treatments.
- National Programs (NP) Branch submits the PPR s to DITRDLG for funding approval and advises the outcomes of the submissions.
- The state wide rest area manager supports National Programs in ongoing management of the program and provides guidance to the regions to help maximise the network benefits from the rest area program as a whole.
- Regions will deliver the works in accordance with the approved program and in line with funding availability.

- NP branch provides monthly expenditure and delivery reports for DITRDLG and a program completion Report after delivery of the program.

Note: The ongoing program of works will be reviewed by the DITRDLG and TMR each year, and this will be conducted by considering the budget allocation and works remaining in the program.

4. Program Development

4.1. *Project Identification Process*

Queensland has adopted a multi-stage approach to establishing, and subsequently supporting within available funding, an effective rest area network by:

- Providing rest areas to ensure all drivers have access to locations across the network in which they can stop their vehicles and achieve effective rest in order to support driver safety outcomes.
 - i. In addition fatigue management legislation requires heavy vehicle drivers to rest for prescribed periods of time, dependant on the hours of work performed.
- Ensuring that eventually heavy vehicle rest areas are located at intervals of no more than around 80km and motorist rest areas are located at intervals of no more than around 100km across the state controlled road network.
 - i. A strategic analysis of the state controlled network produced a map (Appendix A) identifying broad locations where heavy vehicle rest areas should be ideally located. The construction of new rest areas to fill identified 'gaps' on the network is of primary importance.
- The Rest Area network is supplemented by stopping places.
 - i. Stopping places are placed immediately adjacent to through lanes, and usually accommodate 1-2 heavy vehicles only.
 - ii. Stopping places are designed for short-term use, and to allow drivers to check loads, complete Work Diary requirements, etc.
- Investing in strategic provision of new and upgrading of existing rest areas to ensure available capacity and level of facilities provided matches the level of use the site receives.
- Detailed route-by-route analysis to identify locations where new rest areas, upgraded facilities, capacity, etc, may be required. This process considers information from internal and external sources, resulting in an overall prioritised approach to support investment decisions.
- Embed consideration of rest area needs in all aspects of road maintenance and design in support of achieving improved safety outcomes.

4.2. General Guide for the selection of sites

Whilst the strategic approach to locating rest areas sites approximately no more than 80km or 100km apart, selecting the final local location for a new rest area can often be difficult due to the large number of factors that need to be considered.

It is reasonable to create a new rest area less than the warrant from a previous one if there is a need to do so. For example on high volume roads with complex traffic mixes and constrained corridor availability, it may be necessary to place sites closer together in order to meet demand effectively.

Factors that will affect the final on-the-ground locations of rest areas may include proximity to towns or cities, corridor space, terrain, native title, wildlife considerations, accessibility of existing sites, commercial operations, traffic volumes, and less definable factors such as industry expectations.

Whilst reducing spacing between rest areas for valid reasons may be appropriate, extending beyond the recommended spacing should be avoided wherever possible within the available funding for the program so as to ensure suitable opportunities exist as and when drivers require them.

Initial investigations will identify a 'zone' in which a rest area is needed rather than specifying a precise location. The strategic HVRA map (Attachment A) provides guidance on desirable locations for new rest areas and the map and table in Appendix B indicates the zones for rest areas consideration in this program. (Note: initial analysis indicates that the warrant for Motorist rest areas is met in relation to spacing on the two sections of the Bruce Highway, no assessment is made at this level on capacity and facilities available at individual existing sites)

It is important to identify all stopping opportunities along the route. Locations of stopping opportunities along the route include rest areas, towns, commercial service centres, large service stations, and other stopping areas such as truck stopping bays. Examining these assists in finding sections of the route where new rest areas or improvements will complement existing stopping opportunities.

The spacing of rest areas should be considered in light of the traffic volume and type of vehicles commonly using the route, including the interaction with motorist or tourist vehicles. Other considerations include the distance of the area from common origins or destinations as they relate to regulated driving hours and required rest periods for heavy vehicles.

Stopping places should be placed on the road corridor at regular intervals in-between rest areas in order to provide supplemental, short-term, stopping opportunities, unlike

rest areas, which are preferably placed in quieter areas and provide separation from the carriageway, stopping places can be effectively co-located with sites such as roadside enforcement bays, de-coupling pads, or other higher-usage sites.

Site selection for Audio Tactile Line Marking (ATLM) treatment will be prioritised at the link level through analysis of crash history data. This analysis will produce a spreadsheet ranking locations in order of crash history. An example of this can be seen in Appendix C. Regions then examine the prioritised list to ensure there are no conflicts with other activities to ensure no duplication of efforts or where ALTM will have adverse impacts on adjacent residences or rest areas.

4.3. Guidelines for Project Scoping

Factors that need to be taken into consideration in relation to final location of rest areas include:

- Locations of existing stopping opportunities
- AADT (Annual Average Daily Traffic)
- Existing usage patterns of sites in the vicinity
- Fatigue Crash zones or known safety issues along the route
- Composition of traffic and vehicle types permissible on the route
- Future projects or works
- Duplication of existing stopping opportunities/locations
- Projects approved and planned under the Australian Government's Heavy Vehicle Safety and Productivity Program
- Regional planning schemes, local council requirements, and adjacent land use
- Corridor environment, including available land, restrictive topography or infrastructure, environmental concerns, native title considerations, etc.
- Availability of water and electrical power, ease of access for regular maintenance, potential of vandalism, location with respect to supply of labour, plant and all materials.
- Known flood prone areas.

4.4. Project Prioritisation Process

To develop the prioritised sites for inclusion in the appropriate PPR, the following process will be followed:

- Identification of 'gaps' on the network where rest area sites aren't available at intervals less than 80km for HVRA (Refer Appendix A) (Note: initial analysis indicates that the warrant for Motorist rest areas is met in relation to spacing on the two sections of the Bruce Highway)
- Route-level analysis to develop prioritisation maps for significant freight routes showing priority zones. Followed by industry consultation and physical inspection of route to produce a desktop priority of locations and costing developed and sent to regions (Refer Appendix B).
- Priority zones and locations/indicative costing sent to regions for input.
- Detailed assessment of local area to confirm location, constructability, capacity and cost in consideration of corridor space and potential localised restrictions. Draft PPR developed including nominations and costs.

Note: Steering Committee assesses nominated projects to confirm best value and alignment with state wide programs, and the program of works to be submitted to DITRD LG for approval through PPR s.

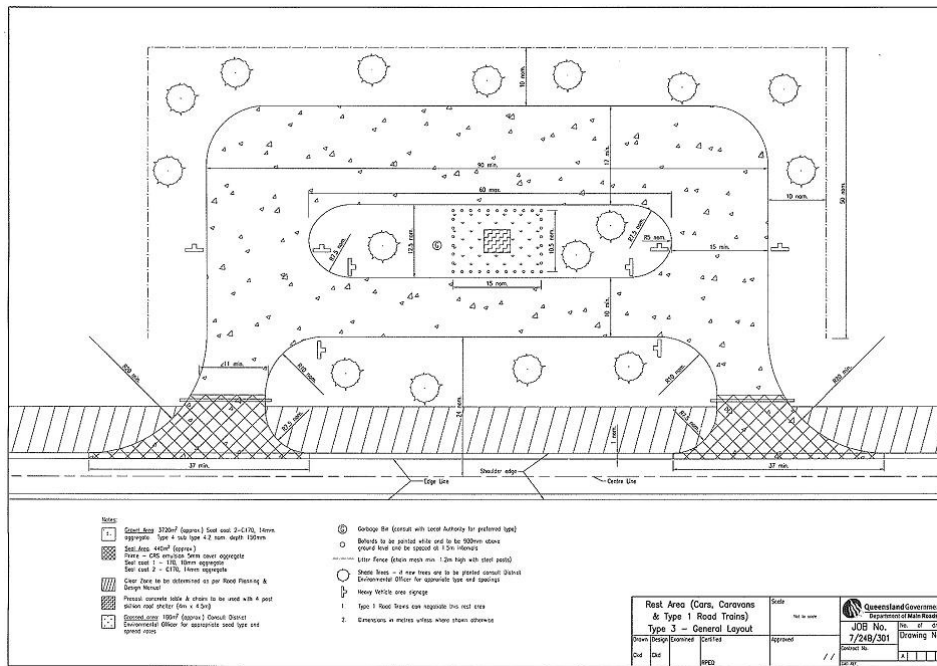
5. Program Parameters

5.1. Parameters for Rest Areas

Construction standards for rest areas are defined in the TMR Road Planning & Design Guide, Chapter 20 (Roadside Amenities), and relevant guidelines. The preferred staged approach to delivering the full standard rest area will include:

- Capacity for up to 6 vehicles
- Sealed
- Bins
- Basic Shade
- Signage
- Other facilities such as shelter & tables, toilets and water may be included should funding permit

In broad terms, a layout below would be appropriate (where sufficient corridor exists) to ensure adequate separation without impacting on accessibility. Obviously local conditions and available funding will strongly dictate available design options.

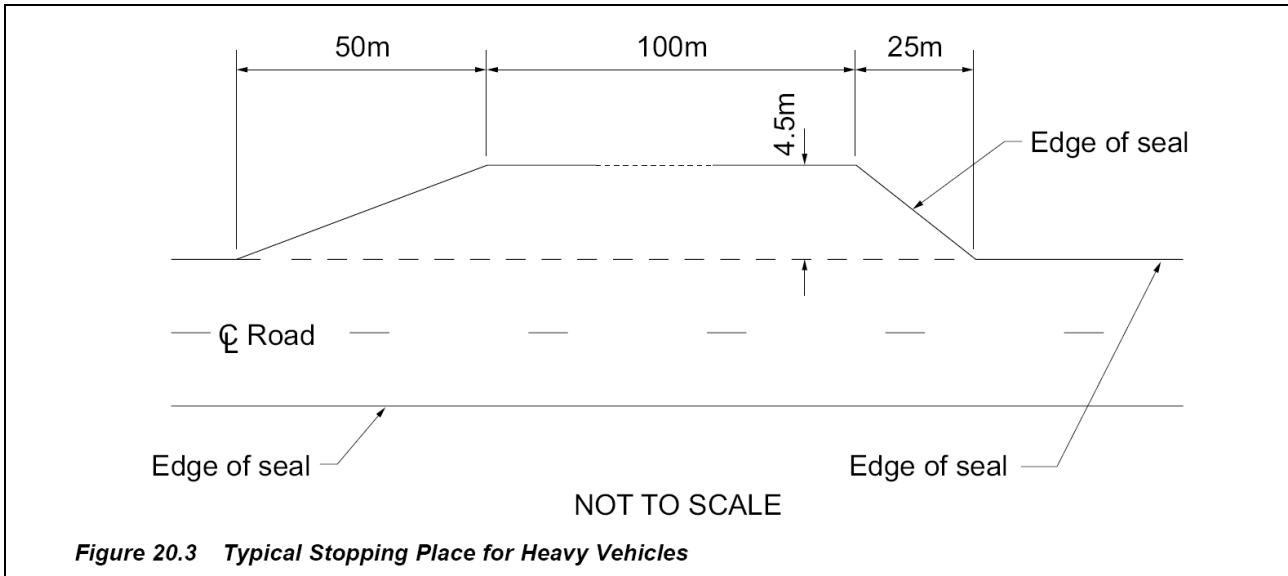


Note: This layout will require modification, depending on the area available within the road corridor. On many rural roads the road reserve is limited to 20 m left and right of the road centreline. In these instances the cost of surveying and defining the corridor, and potential resumption costs may be prohibitive.

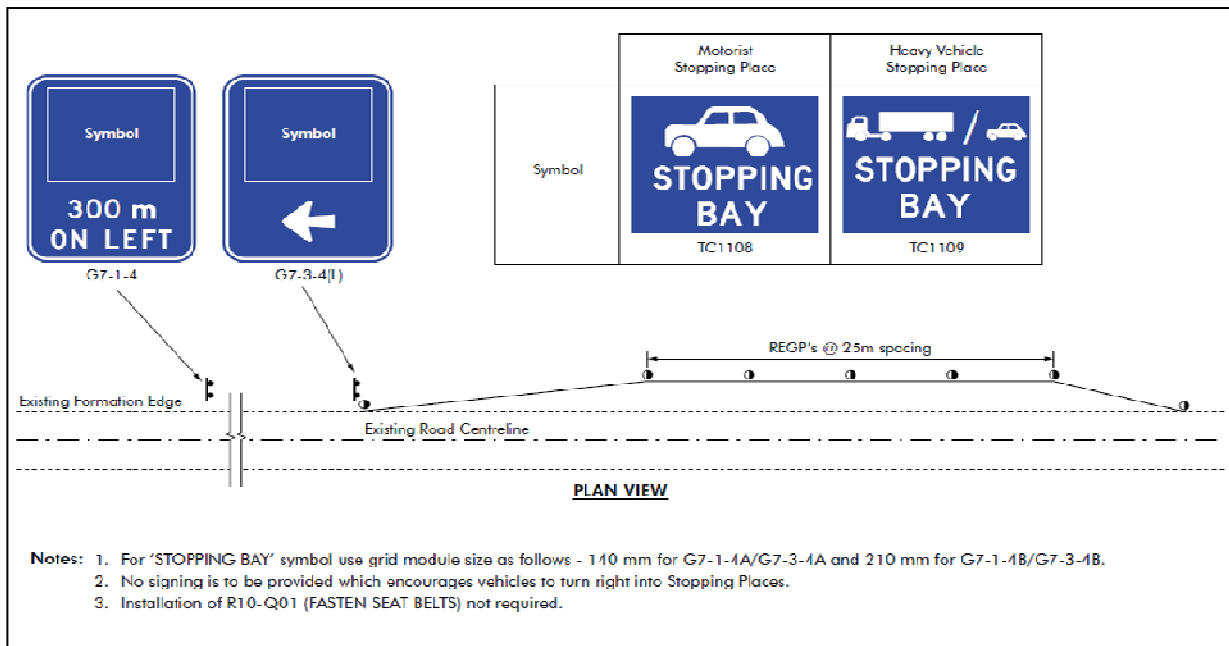
Deceleration and acceleration lanes and tapers for the accesses are not included and will need to be assessed by the regions in nominating sites. Due to total “project length” involved, impact on existing drainage structures, appropriate sight distance and access/headland issues will need careful consideration as they may contribute significantly to the project cost.

5.2. Parameters for Stopping Places

Stopping Places, used to supplement the rest area network, are able to be constructed in a more standardised manner than rest areas due to their function and placement adjoining the carriageway. Transport and Main Roads (TMR) utilises a standard stopping bay template upon which stopping places should be based. The following dimensions are recommended in the TMR Road Planning & Design Guide, Chapter 20 (Roadside Amenities). Please note that the 4.5m width is the total shoulder width and the edge of seal line is in fact the traffic lane edge line.



Additionally, signage indicating the presence of a stopping bay is required and should conform to the following standards.



5.3. Parameters for Audio Tactile Line Marking (ATLM)

The department has examined the three sub links, assigning crash rates to each segment of the network, and has ranked road segments according to the 'crash rating' to program ATLM works in identified risk zones where fatigue-related crashes have occurred. Appendix C presents an excerpt from the analysis utilised to identify appropriate routes for the Warrego Highway.

As a result, it is possible to program ATLM on a kilometre-by-kilometre basis across the sub-links, commencing at locations identified on the relevant road sections that have to date not received ATLM treatment, and ranked in order of crash history based on the strategic data provided by this assessment.

The sites shall be validated by regions against other upcoming works and on ground suitability to implement ATLM. Delivery will be via either region negotiated contracts or state-wide contracts as appropriate.

For the purposes of this Nation Building Program allocation, locations have initially been identified on the relevant road sections that have to date not received ATLM treatment, and ranked in order of crash history based on the strategic data provided by Safer Roads Unit (SRU).

These sites will be validated by regions within each funding year once details of other upcoming works have been confirmed through other programs such as the Black Spot Program or the Widening Program. Where a section is found to be soon receiving rehabilitation works through other programs, or is in conflict with local conditions or activities, the next most relevant location will be utilised.

Where savings occur within the amounts allocated, the next most relevant section of road within the defined sub-link will be utilised for treatment.

There is potential that some segments nominated in the PPR will be subject to change depending on other implementation works. In this case, the next most appropriate section will be selected for treatment under this program within the relevant road section.

6. Program Governance

- On the ground delivery of projects will be undertaken by the relevant regions, and the respective Regional Managers will be responsible to ensure all TMR processes are adhered to. The Director (National Programs) has a federal funding overview of the programs.
- The Regional Director (Cloncurry) has been endorsed by the department as the high level manager with state-wide authority and responsibility to ensure strategic placement, design and delivery of rest areas. Regions will need to work with the RD (Cloncurry) to deliver the approved projects.
- RFS is responsible for supporting the development of the program by providing strategic assessments and advice that is consistent with the departmental guidelines.
- The ATLM component of the program will be developed based on initial advice from the SRU of TMR, and once the program is approved ATLM delivery will be coordinated by the state wide ATLM manager as part of the state-wide ATLM program.
- In assessment of submissions, the Steering Committee will consult with the Regions, SRU and RFS as needed to maximise the network outcomes of funding available through the Nation Building Program.
- For the purposes of assessing rest area submissions the Steering Committee will consist of representatives of Program Management Branch, Director (Program Management), Director (National Programs), Principal Engineer (National Programs), and the RD(Cloncurry) in his role as manager of the state wide rest area program (Or his representative from RFS). ATLM Manager will be invited to sit in when necessary.
- NP Branch will act as the Secretariat for the Steering Committee.
- The DITRD LG will be invited to sit in when the Steering Committee meets to endorse the programs.

7. Management of the Program

- The regions have been requested to submit the nominations via RFS Branch based on the priority zone information and these should include locations, capacity, proposed facilities and project cost for the life of the NBP program.
- The candidate projects will be reviewed by the Steering Committee and the final outcome will be endorsed for inclusion in the PPRs
- The funding of the Program is subject to the release of funds by the DITRD LG on an annual basis through the federal budget. NP Branch will advise the approved projects and allocations as these become known.

- The program will be reviewed at the beginning of each financial year until 2013/14 inclusive (or as otherwise advised by the DITRDLG).
- The administration of the program will be subject to the terms and conditions of the DITRDLG, and NP branch will keep stakeholders informed regarding the administrative instruments.

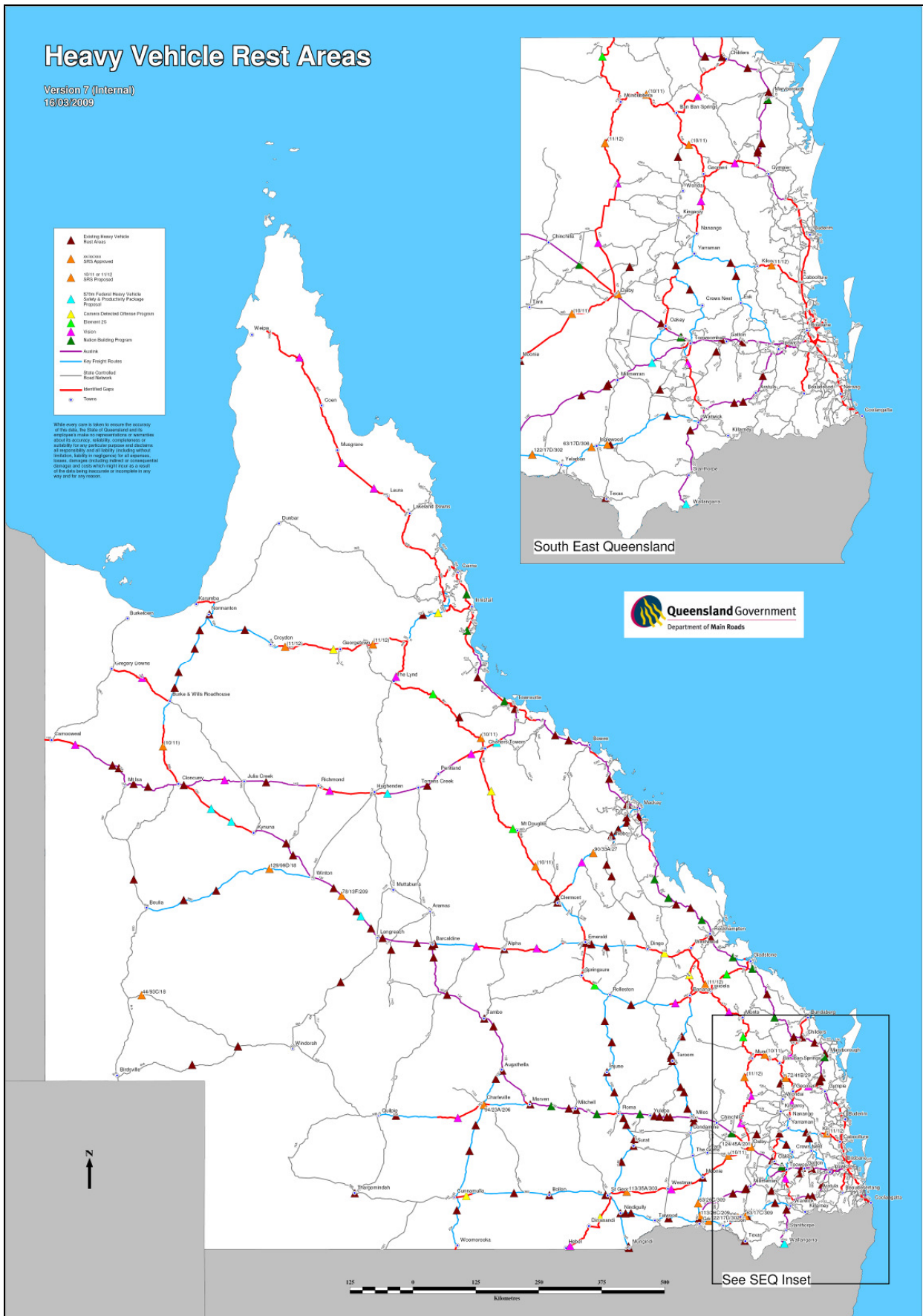
8. Project Proposal Report (PPR) Process

- Only one PPR will be prepared for each sub-link covering scoping, development and delivery phases of the project.
- Draft PPR s will be prepared by the RFS branch in consultation with regions on behalf of the state wide rest area program manager under the guidance of NP branch for endorsement by the Director (National Programs).
- The recommended program of works for the sub link funding allocation will be included with each PPR.
- The PPRs will indicate guaranteed deliverables for the approved funding, with a prioritised list of additional projects to which savings could be applied.
- The DITRDLG will require an updated program of works for each year, and this will be prepared by considering the budget allocation and works remaining in the program.
- The NP Branch will update and submit revised work programs each year

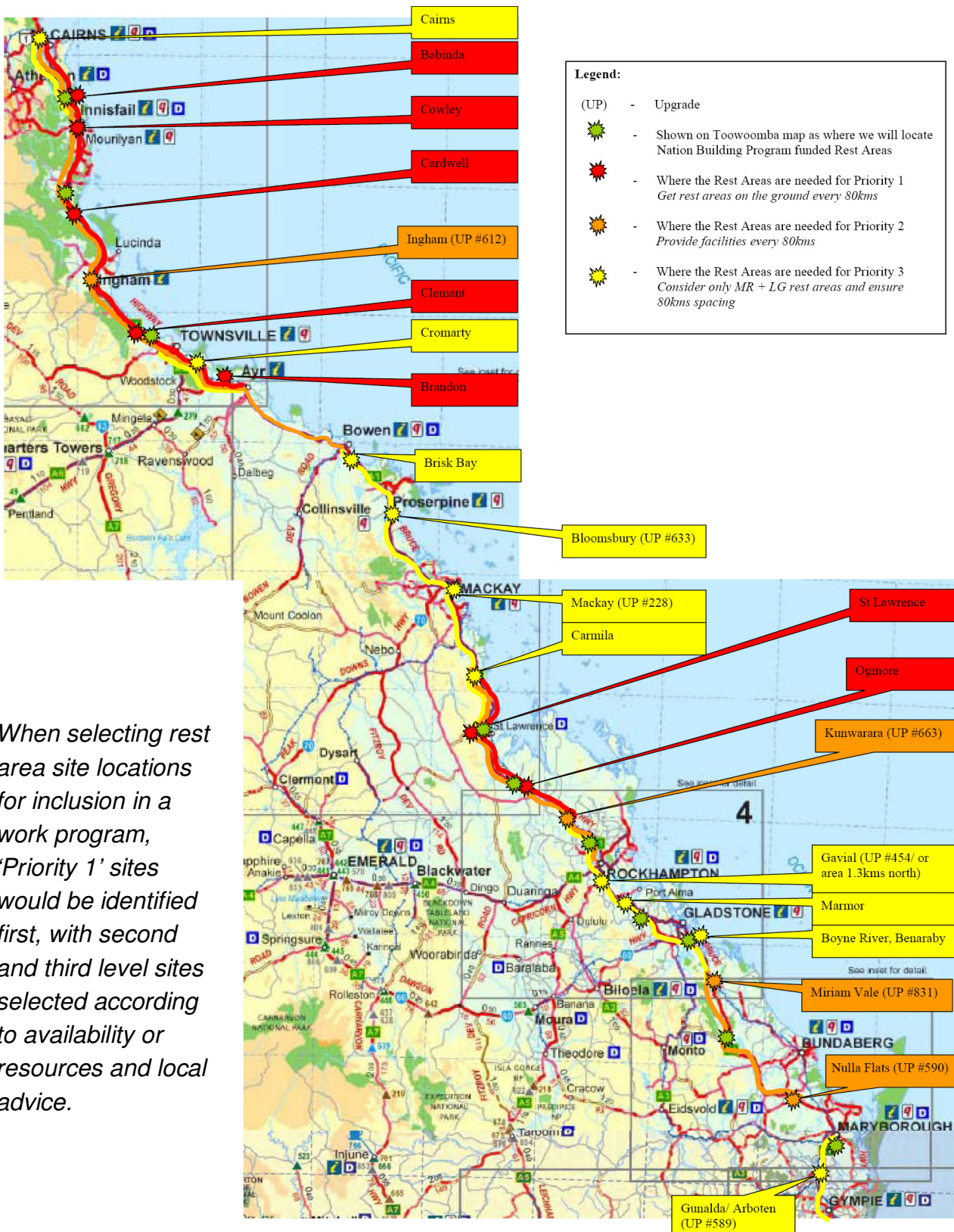
9. Attachments

- Appendix A – RA Strategic Location Map
- Appendix B - Route Level Prioritisation
- Appendix C - ATLM Prioritisation Spreadsheet

Appendix A: HVRA Strategic Location Map



Appendix B: Route Level Prioritisation



When selecting rest area site locations for inclusion in a work program, 'Priority 1' sites would be identified first, with second and third level sites selected according to availability or resources and local advice.

BRUCE HWY PPR INPUT- FOR REGION VERIFICATION

Election commitment	REST AREAS						STOPPING PLACE					TOTAL
	Section	Region	REST AREA Suggested Location	REST AREA Cost Allocated - 2009 \$ See funding profile	Timeframe See funding profile	REST AREA Standard to build to	Region	STOPPING PLACE Suggested Location	STOPPING PLACE Cost Allocated - 2009 \$ See funding profile	Timeframe See funding profile	STOPPING PLACE Standard to build to	
Minister commitment	Gympie to Maryborough	Wide Bay / Burnett	HVRA upgrade: Gunaids 550#	\$1,500,000	REGION TO ADVISE suggest 13/14							
Children - Sarina - \$30m 6 new RA's, 8 vehicle SP's, audible edge lines.	Childers to Gladstone	Wide Bay / Burnett	HVRA: Boyne River	\$1,500,000	REGION TO ADVISE suggest 12/13							
	Childers to Gladstone	Fitzroy	HVRA: Gin Gin (beside weed wash down area/ cattle sale yards) Dependent on the outcome of the HVSP submission	\$1,500,000	REGION TO ADVISE suggest 10/11	<ul style="list-style-type: none"> Capacity for 6-10 semi-trailers Sealed Shade shelter & tables Water Bins Toilets 						
	Gladstone - Rockhampton	Fitzroy	HVRA: Marmor	\$1,500,000	REGION TO ADVISE suggest 11/12	<ul style="list-style-type: none"> Separation from motorist areas Left in, left out access 	1. Wide Bay/ Burnett	1. HVSP Childers, Chge 50 on 10C	\$300,000	REGION TO ADVISE	Roadside Amenities Policy & Road Planning & Design Manual	
	Rockhampton - Sarina	Fitzroy	HVRA: Carmila	\$1,500,000	REGION TO ADVISE suggest 12/13		2. Mackay/ Whitsunday	2. HVSP Palm Creek: sth direction, Chge 77.3 on 10D	\$300,000	REGION TO ADVISE		
	Rockhampton - Sarina	Fitzroy	HVRA: Ogmore	\$1,500,000	REGION TO ADVISE suggest 11/12		3. Fitzroy	3. HVSP Tannum Sands, REGION TO ADVISE ON LOCATION	\$300,000	REGION TO ADVISE		
	Rockhampton - Sarina	Mackay / Whitsunday	HVRA: St Lawrence	\$1,500,000	REGION TO ADVISE suggest 10/11		4. Fitzroy	4. HVSP M. Larcom Service Station, Chge 45.77#	\$300,000	REGION TO ADVISE		
							5. Fitzroy	5. HVSP 10kms south of Gavial, REGION TO ADVISE ON LOCATION	\$300,000	REGION TO ADVISE		
							6. Fitzroy	6. HVSP 1/2 between Ogmore & Marborough, REGION TO ADVISE ON LOCATION	\$300,000	REGION TO ADVISE		
						7. Mackay/ Whitsunday	7. HVSP St Lawrence, REGION TO ADVISE ON LOCATION	\$300,000	REGION TO ADVISE			
						8. Mackay/ Whitsunday	8. HVSP Carmila, REGION TO ADVISE ON LOCATION	\$300,000	REGION TO ADVISE			
TOTAL				\$10,500,000					\$2,400,000			\$12,900,000
Sarina - Cairns - \$5m 4 new RA's, 5 vehicle SP's, audible edge lines.	Townsville - Innisfail	Northern	HVRA: Clemant	\$750,000	REGION TO ADVISE suggest 13/14							
	Townsville - Innisfail	Far North	HVRA: Cardwell	\$750,000	REGION TO ADVISE suggest 10/11	<ul style="list-style-type: none"> Capacity for 4-6 semi-trailers Sealed Shade Basic shelter & tables Portable water Bins Left in, left out access 						
	Innisfail - Cairns	Far North	HVRA: Babinda	\$750,000	REGION TO ADVISE suggest 11/12							
	Townsville - Innisfail	Northern	HVRA: Brandon	\$750,000	REGION TO ADVISE suggest 12/13							
						<ul style="list-style-type: none"> * 2 RA's in 10/11 * 2 RA's in 11/12 * 2 RA's in 12/13 * 1 RA in 13/14 						
							1. Far North	1. HVSP Babinda, REGION TO PROVIDE ADVISE	\$225,000	REGION TO ADVISE		
							2. Far North	2. HVSP 25kms south Tully, REGION TO PROVIDE ADVISE	\$225,000	REGION TO ADVISE		
							3. Mackay/ Whitsunday	3. HVSP Farleigh, REGION TO PROVIDE ADVISE	\$225,000	REGION TO ADVISE		
							4. Mackay/ Whitsunday	4. HVSP Calen, REGION TO PROVIDE ADVISE	\$225,000	REGION TO ADVISE		
							5. Mackay/ Whitsunday	5. HVSP Proserpine, REGION TO PROVIDE ADVISE	\$225,000	REGION TO ADVISE		
TOTAL				\$3,000,000					\$1,125,000			\$4,125,000

* Region to decide exact location near proposed area
* There can be no cost over-ture.

* There can be no cost over-ture.

For the purposes of developing the PPR for the Bruce Highway, information from the previous map was distilled into a strategic list of sites for both rest areas and stopping places. This was distributed to regions for input and verification ahead of determining the final list of works to be submitted.

Appendix C: ATLM Prioritisation Spreadsheet

The following is a prioritised list of potential treatment sites on the Warrego Highway provided by the Safer Roads Unit.

Fatigue Zones without ATLM
DCA 701-704, 801-804, 201, speed >= 90 (ROR)
or QPS or fatigue by definition, speed >= 90 (QPS)
July 2003 - June 2008

FATIGUE_TYPE	ZONE_RANK	NO_CRASHES	ROAD_DESC	REGION_ID	REGION_NAME	RIC	DISTRICT_NAME	ROAD_SECTION_DESC	TDIST_START	TDIST_END	Length	Crash Rate
QPS/ROR	10	80	Warrego Hwy	206	Metropolitan	3	SOUTHERN DISTRICT	18A - Ipswich - Toowoomba	51.07	58.49	7.4	10.8
QPS/ROR	11	80	Warrego Hwy	206	Metropolitan	3	SOUTHERN DISTRICT	18A - Ipswich - Toowoomba	31.25	45.75	14.5	5.5
QPS/ROR	17	44	Warrego Hwy	206	Metropolitan	3	SOUTHERN DISTRICT	18A - Ipswich - Toowoomba	63.36	90.06	26.7	1.6
QPS/ROR	175	12	Warrego Hwy	202	Darling Downs	3	SOUTHERN DISTRICT	18B - Toowoomba - Dalby	51.23	61.19	10.0	1.2
ROR	269	7	Warrego Hwy	202	Darling Downs	3	SOUTHERN DISTRICT	18C - Dalby - Miles	23.07	29.60	6.5	1.1
QPS/ROR	141	15	Warrego Hwy	202	Darling Downs	3	SOUTHERN DISTRICT	18B - Toowoomba - Dalby	1.13	20.30	19.2	0.8
QPS/ROR	149	14	Warrego Hwy	202	Darling Downs	4	SOUTH WESTERN DISTRICT	18C - Dalby - Miles	100.89	125.89	25.0	0.6
QPS/ROR	242	8	Warrego Hwy	202	Darling Downs	3	SOUTHERN DISTRICT	18B - Toowoomba - Dalby	65.59	84.19	18.6	0.4
ROR	226	9	Warrego Hwy	211	South West	4	SOUTH WESTERN DISTRICT	18D - Miles - Roma	87.76	112.76	25.0	0.4
QPS	243	8	Warrego Hwy	202	Darling Downs	4	SOUTH WESTERN DISTRICT	18D - Miles - Roma	5.07	30.07	25.0	0.3
QPS/ROR	208	10	Warrego Hwy	202	Darling Downs	4	SOUTH WESTERN DISTRICT	18D - Miles - Roma	35.04	67.53	32.5	0.3
QPS/ROR	270	7	Warrego Hwy	211	South West	4	SOUTH WESTERN DISTRICT	18D - Miles - Roma	116.27	141.27	25.0	0.3
QPS	309	5	Warrego Hwy	202	Darling Downs	3	SOUTHERN DISTRICT	18C - Dalby - Miles	74.32	95.03	20.7	0.2
QPS/ROR	207	10	Warrego Hwy	211	South West	4	SOUTH WESTERN DISTRICT	18D - Miles - Roma	42.53	86.87	44.3	0.2

A similar analysis for each highway segment under consideration was completed by the TMR Safer Roads Unit. Where savings are made, ATLM will be applied to identified sites on a kilometre-by-kilometre basis, as prioritised by crash history in the above table, ensuring there is no conflict with or duplication of other bodies of work such as the Black Spot Program or the Strengthening and Widening program.