

Amenity and Use



convenient facilities

Overview



Indicator name	Places to stop and rest		
Indicator number	13	Indicator type	Supplementary
Objective	To measure the provision, capacity, safe access and fitness-for-purpose of mid-trip rest facilities.		
Application guidance	Adequate provision of mid-trip rest facilities is essential for maintaining the safety and comfort of motorists and heavy vehicle operators on long journeys on the road network. Similarly, sustainable modes of transport can be made the easy and natural choice for all when regular places to stop and rest are provided. Rest areas are formal and informal off-road stopping locations along roads which are provided for drivers and passengers to take rest breaks and manage fatigue, as well as providing other mid-trip amenities such as toilets, tables/benches, bins, shelter and lighting. This indicator will support practitioners to understand how the provision of suitable rest facilities can support safe journeys. Based on the outcome of the assessment, practitioners can determine whether additional and/or improved rest facilities should be considered. Practitioners can use the <i>distance between rest areas</i> metric to measure whether the distance between rest stops on State roads is aligned with Austroads standards.		

Metric



Distance between rest areas

Related indicators



Access and Connection

5 Freight network accessibility



Amenity and Use

12 Transport node facilities



Green and Blue

19 Tree canopy



Comfort and Safety

23 Road safety

26 Community safety

28 Urban heat

Recommendation



- To enrich the RAMS State road data, manual collection of informal rest areas such as town centres or high streets and commercial facilities should be undertaken
- Heavy vehicle traffic volumes could be considered in the methodology for a more robust analysis of potential demand for rest areas/facilities
- Public seating, including both informal and formal opportunities, should be captured through manual data collection to consider rest facilities for people walking along their journeys. This could be analysed specifically around sensitive locations (ie. schools, nursing homes) where provision of these facilities is more important



Metric – Distance between rest areas

Metric unit	Percentage of spacings within range (%)
Description	To measure the spacing of different classes of rest areas along State roads against recommendations made in the Austroads Guidelines
Spatial coverage	Applicable to all NSW, State roads only
Spatial application	This metric is most suitable for link-based analysis based on the State road network
Calculation methodology	Identify State road corridors 1. Obtain road segment data from TfNSW Road Track Path Network 2. Filter road segments identified as State roads, and combine road segments with the same road ID 3. Calculate the length of each State road corridor, with dual carriageways considered separately (see assumptions) Identify rest areas 4. Obtain location of rest areas from TfNSW Road Asset Management Systems (RAMS) dataset, including data on their directionality and amenities 5. Identify which State roads each rest area applies to by snapping its centroid to the nearest state road segment 6. Classify each rest area to Austroads HVRA classifications based on their available parking, safety features and amenities according to Table 4.1 of Austroads Guidelines for the Provision of Heavy Vehicle Rest Area Facilities (below)

Table 4.1 HVRA facilities

Criteria	Facilities/Features		Further Discussion	HVRA Classification				
				1	2	3	4	5
Spacing & placement	Demand-based spacing ⁽¹⁾	Time	Section 4.3	1 hour	1 hour	30 mins	30 mins	15 mins
		Distance	Section 4.3	70 to 100km	70 to 100km	35 to 50km	35 to 50km	15 to 25km
Key safety features ⁽²⁾	Safe vehicle movement and access		Section 4.4.1	■	■	■	■	■
	Capacity – present and forecast		Section 4.4.2	20+ bays	15-20 bays	10-15 bays	5-10 bays	5+ bays
	Separation of light and heavy vehicles		Section 4.4.3	■	■	▲	○	○
	Separation of vehicles carrying noisy freight		Section 4.4.4	■	▲	○	○	○
	Separation for long-term/short-term visitors		Section 4.4.5	■	▲	○	○	○
	Unidirectional flow		Section 4.4.6	■	■	■	■	▲
	No reversing movements		Section 4.4.7	■	■	■	■	■
	Security		Section 4.4.8	■	■	■	■	■
	Pedestrian safety and access		Section 4.4.9	■	■	■	■	■
	Signage on approach and within HVRA		Section 4.4.10	■	■	■	■	■
Amenities/extras ⁽²⁾	All-weather seal		Section 4.5.1	■	■	■	▲	○
	Tables/benches		Section 4.5.2	▲	▲	▲	▲	○
	Natural shade		Section 4.5.3	■	■	■	■	▲
	Shelter		Section 4.5.4	▲	▲	▲	▲	▲
	Rubbish bins		Section 4.5.5	▲	▲	▲	○	○
	Lighting		Section 4.5.6	▲	▲	▲	○	○
	Toilets		Section 4.5.7	■	▲	▲	▲	○
	Water		Section 4.5.8	▲	▲	○	○	○
	Visitor information board		Section 4.5.9	▲	▲	○	○	○
	Managed livestock effluent disposal sites		Section 4.5.10	▲	▲	▲	▲	▲

1 Suggested spacing only. Actual spacing of HVRA should be based on a variety of factors. Refer to Section 4.3.1 for further guidance.

2 Additional issues (Section 4.6) should also be considered.

Key: ■ Facility/feature is required ▲ Facility/feature should be provided where practicable ○ Facility/feature is optional



Metric – Distance between rest areas (Cont.)

Calculation methodology

Calculate distance between rest areas

- For each rest area along each direction of carriageway on the State road, use the Austroads HVRA classification from Step 6 to calculate the distance between the following and previous consecutive rest areas
- For each HVRA Class, determine what percentage of preceding/succeeding spacings fall within the recommended range outlined by Austroads. Assign a value to each class based on the percentage of spacings that fall in the range, outlined in the table below. If none or only one rest area of that class occurs along the corridor, omit that class from further calculations.

Class	Spacing	1	2	3
Class 1	<70-100km	<75%	75-100%	100%
Class 2	<70-100km	<75%	75-100%	100%
Class 3	<35-50km	<75%	75-100%	100%
Class 4	<35-50km	<75%	75-100%	100%
Class 5	<15-25km	<75%	75-100%	100%

Data representation

- Assign colour based on the classification below
 - 1 = less than 75% of rest stops are within the required range
 - 3 = 100% of rest stops are within the required range

Unit: Percentage of spacings within range (%)



Assumption

- Dual carriageway roads have separate road name IDs in the dataset despite having the same road name
- Data on directionality and amenities should be validated against aerial imagery/surveys
- RAMS does not capture non-TfNSW sites and should be supplemented by other data sources (ie. National Highway Vehicle Register, fuel pump locations) to account for commercial rest areas

Limitation

- RAMS does not include commercial facilities or informal rest stop areas such as town centres, which also provide places to stop and rest
- Difference in volumes of heavy vehicle traffic has not been considered in this analysis
- Corridors with higher demand and/or urbanisation should have intervals determined by heavy vehicle travel time rather than by distance

Data source

- TfNSW Road Track Path Network
- TfNSW Road Asset Management Systems
- National Heavy Vehicle Register
- Commercial facilities/rest areas, subject to manual data collection or unpublished data

Reference

Austroads, Guidelines for the Provision of Heavy Vehicle Rest Area Facilities, Research Report AP-R591-19 (2019): [austroads.com.au/_data/assets/pdf_file/0025/160648/AP-R591-19_Guidelines_for_the_Provision-of_HVRA_Facilities-1.1.pdf](https://austroads.com.au/data/assets/pdf_file/0025/160648/AP-R591-19_Guidelines_for_the_Provision-of_HVRA_Facilities-1.1.pdf)