



Hoddle Region

Rate Your Road

March 2021

Director's address

In January 2019, the NRMA launched a report revealing a \$2.2 billion council funding backlog to maintain local roads across NSW. Alongside the report, 'Rate Your Road' was born – a state-wide survey that called on NRMA Members and the community to rate the condition and safety of their local roads.

Within weeks, Rate Your Road attracted more than 23,000 responses, making it the largest transport survey in the state's history. Promising news shortly followed, with the NRMA's policies to address the local roads funding backlog adopted by both sides of politics prior to the 2019 NSW State Election. The NRMA's policies were designed to elevate the condition of local roads across the state to at least a satisfactory level to improve safety and assist in stimulating local economies.

In March 2019, the NSW Government committed \$1 billion to help clear the council funding backlog, replace NSW's worst timber bridges, and transfer up to 15,000 kilometres of council-owned regional roads to the state to lessen the financial burden on councils. In May 2020, the Federal Government announced a \$1.8 billion commitment to provide a much needed boost to road infrastructure focusing on regional roads as part of their COVID recovery package, proving our advocacy has a real impact on Government decision making.

This report presents the results of the Rate Your Road survey for the Hoddle Region, which incorporates 12 Local Government Areas across Sydney's metropolitan south, the Illawarra and the South Coast. Aside from gaining some intriguing insights, the full and public release of the NRMA's survey results will assist in guiding government investment.

If you were one of the tens of thousands who participated in Rate Your Road, thank you for contributing to this outcome.

Marisa Mastroianni
Director – Hoddle Region

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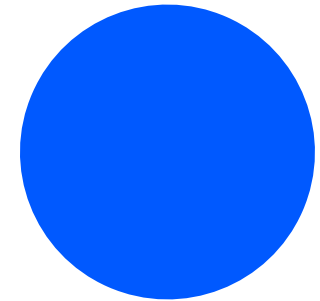
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Introduction

The NRMA is a national leader in advocating for safer roads and better transport outcomes for NSW and the ACT. Prior to the 2019 NSW State Election, the NRMA undertook a comprehensive survey with the public, asking them to rate roads in their local area against a number of characteristics including safety, congestion, condition and public transport.

The rate your road survey was developed by the NRMA as a platform for the public to identify key roads for improvement. The basis of the survey was that 'no one knows the roads you use like you do' and the analysis may be considered to support all levels of government in guiding funding commitments.

We want to thank NRMA Members and the public for taking the time to respond to the survey. The responses we received were extensive and from right across the state, from Parramatta Road in Sydney, to Billybingbone Road in Gongolgon, The Snowy River Way in Dalgety, and Dolgelly Road in Garah.



About the NRMA

Better transport infrastructure has been a core focus of the NRMA since 1920 when our founders lobbied for improvements to the condition of Parramatta Road in Sydney. Independent advocacy was the foundation activity of the organisation and remains critical to who we are 100 years later.

The NRMA has grown to one of the largest tourism and transport companies in Australia, representing over 2.6 million Australians principally from NSW and the ACT. We provide motoring, transport and tourism services to our Members and the community.

Today, we work with policy makers and industry leaders to advocate for transport solutions that help solve key pain points such as congestion, access and affordability and connect people and communities. We're passionate about facilitating travel across Australia, recognising the vital role tourism plays in supporting regional communities.

By working together with all levels of government to deliver integrated transport and tourism options we can provide for the future growth of our communities and continue to keep people moving for generations to come.

Background

Regional and Local roads are the backbone of our transport system, making up approximately 80% of the national road network.

In 2019, the NRMA released its Funding Local Roads report which sought to address and quantify the infrastructure backlog on regional and local roads in NSW. Under the national funding system, local government is largely responsible for funding, upgrading and maintaining thousands of kilometres of roadways. The local government tends to fund road infrastructure through payable rates, and though there are grants from the state and federal government, a significant shortfall remains.

Passenger, and in particular freight traffic, has sharply increased in recent times, and the damage to the road tends to be exponentially correlated with the volume and weight of vehicles. The poor condition of roads increases wear and tear to vehicles, increasing servicing costs to the public, and further, poor roads can lead

to relatively hazardous driving conditions, potentially leading to higher crash rates, leading to property damage, injury and deaths.

In recent years, interstate and intrastate rail freight services have considerably declined due to competitiveness pressures, and with the ongoing drought, water and fodder are increasingly being moved on regional roads to support regional areas.

The NRMA's Funding Local Roads report outlined that in recent years, the funding backlog increased by almost 30% from \$1.73 billion in 2014-15, to \$2.2 billion in 2016-17, with regional Councils responsible for approximately 75% of the backlog.

Whilst this is part of a broader discussion, subsequent reviews into road use have highlighted that the current road funding environment is unsustainable. Most recently, Infrastructure Australia has stated that 'road use, funding and expenditure is not adequately linked', highlighting that the current status is 'inequitable', 'inefficient', 'unsustainable' and 'not transparent'.

The NRMA is committed to advocating on behalf of Members for a fairer funding and financing system for all road and transport users which is sustainable over the long term.

Bureau of Infrastructure, Transport and Regional Economics (BITRE)

The Bureau of Infrastructure, Transport and Regional Economics (BITRE) provides economic analysis, research and statistics on infrastructure, transport and regional development issues to inform government policy development.

In the 2018 yearbook produced by BITRE, the following is a summary of the road network, and the demands we place upon it.

In 2017-18, it is estimated that NSW drivers drove a collective 80 billion kilometres, up from approximately 30 billion kilometres in the early 1970s. ACT drivers drove a collective 4.2 billion kilometres in 2017-18, up from 900 million kilometres in the early 1970s.

The freight task of the roads has grown significantly faster. In the early-to-mid 1970s, the freight task was approximately 10 billion tonne kilometres in NSW and

0.2 billion tonne kilometres in the ACT. By 2015-16, BITRE estimated NSW had a road freight task of 62.8 billion tonne kilometres, and the ACT, 0.6 billion tonne kilometres in the ACT.

In 2015, it was estimated that NSW had a collective 207,187km of public road, of which 201,397km was paved. Similarly, in 2015, the ACT had 3,448km of roads, of which 3,348km are paved.

BITRE estimates that road funding in NSW increased from an average of approximately \$6 billion annually during the 2010s, to an average of approximately \$8 billion in recent years. The ACT had road funding of approximately \$200 to \$250 million annually across the last 15 years.

The headline and per capita fatality rate on the roads has steeply declined since the 1970s. In 1971, NSW recorded 1,249 road fatalities, decreasing to 392 in 2017. On a per capita basis, the fatality rate dropped from 26.4 fatalities/100,000 population to five fatalities/100,000 population. Similarly, in the ACT, in 1971, the fatality rate was approximately 15 fatalities/100,000 population, decreasing to 2.5 fatalities/100,000 population during the 2010s.

NRMA regions

NRMA has divided NSW and the ACT into six regions, with each region represented by an NRMA Director.

Region	Area	Area (km ²)	Population
Cox	Western Sydney and the Blue Mountains	2,718	1,801,605
Harbour	Sydney's metropolitan north, the Eastern Suburbs and the Inner West	599	1,522,003
Hoddle	Sydney's metropolitan south, the Illawarra and the South Coast	18,894	1,221,800
Howe	Sydney's northern suburbs, the Central Coast and the Hunter	30,104	1,385,792
Mann	ACT and southern regional and rural NSW	244,497	1,056,053
Townsend	Northern regional and rural NSW, including Northern Tablelands, North Coast and Far North West NSW	498,144	858,429



Hoddle

Hoddle overview

Bayside

Bega Valley

Camden

Campbelltown

Eurobodalla

Georges River

Kiama

Shellharbour

Shoalhaven

Sutherland Shire

Wollondilly

Wollongong

Cumulatively, these regions cover an area of 18,894 square kilometres and are home to 1,221,800 residents as of the 2016 census. For the purposes of this report, a 'pin' is a point that a survey respondent identified for the purposes of completing the survey. Nearly 4,000 pins were dropped in the Hoddle region.

Centre for Road Safety

Based on the Centre for Road Safety, the following table identifies the number and types of crashes for the LGAs between the beginning of 2014 and the end of 2018 within the Hoddle region:

LGA	2014-2018 Crash History			
	Fatal Crashes	Injury Crashes	Non-injury Crashes	Total Crashes
Bayside	19	2,275	1,346	5,915
Bega Valley	15	335	171	856
Camden	8	548	418	1,522
Campbelltown	10	1,408	858	3,684
Eurobodalla	13	483	235	1,214
Georges River	9	1,296	836	3,437
Kiama	5	173	110	461
Shellharbour	7	588	410	1,593
Shoalhaven	50	1,053	626	2,782
Sutherland Shire	33	1,669	1,083	4,454
Wollondilly	28	488	307	1,311
Wollongong	25	2,197	1,341	5,760
Hoddle Total	222	12,513	7,741	20,476

The above table is a staggering reminder of the societal cost of road trauma. In the Hoddle region, 222 people crashes resulted in someone losing their life, and there were more than 12,500 crashes resulting in injury. The economic cost of these accidents is also significant, in 2019, TfNSW estimated that the economic cost of a

fatal crash in NSW was \$8.586 million, a serious injury resulting in hospitalisation cost approximately \$500,000, a moderate/minor injury crash cost approximately \$90,000 and a property damage only crash cost \$10,000. Based on this, in the Hoddle region, the cost of road trauma aggregated to \$5 billion.

Rate Your Road data collection

Data collection ran for approximately one month between January 2019 and February 2019 with members and the broader public encouraged to participate through NRMA media and communication channels. The survey was run through a dedicated website www.rateyourroad.com.au, with more than 23,000 surveys fully completed.

The survey asked respondents for their residential postcode, the road they wanted to rate, the condition, congestion, safety and public transport on the basis of

very poor, poor, average, good or excellent. The survey also allowed people the opportunity to input a free text comment. Finally, the survey asked respondents to identify their age bracket.

Survey Participation

In terms of summarising participation in the survey on an area and per capita basis, the following table shows a summary.

LGA	Area km ²	Population (2016 census)	Density (ppl/km ²)	Road length (sealed & unsealed)	Pins	Pins/100 km ²	Pins / 1,000 population	Pins/popn/area X 1,000,000	Pins/100 km of road
Bayside	50	156,058	3,121.16	1732.1	476	952.00	3.05	61.00	27.5
Bega Valley	6,279	33,253	5.30	3292.4	113	1.80	3.40	0.54	3.4
Camden	201	78,219	389.15	812.6	55	27.36	0.70	3.50	6.8
Campbelltown	312	157,006	503.22	1092.5	345	110.58	2.20	7.04	31.6
Eurobodalla	3,428	37,232	10.86	1845.3	112	3.27	3.01	0.88	6.1
Georges River	38	146,841	3,864.24	460.8	312	821.05	2.12	55.91	67.7
Kiama	258	21,464	83.19	362.6	30	11.63	1.40	5.42	8.3
Shellharbour	147	68,460	465.7	510.6	214	145.58	3.13	21.26	41.9
Shoalhaven	4,567	99,650	21.82	2627.8	538	11.78	5.40	1.18	20.5
Sutherland Shire	370	218,464	590.44	1117.9	639	172.70	2.92	7.91	57.2
Wollondilly	2560	48,519	18.95	1282.1	470	18.36	9.69	3.78	36.7
Wollongong	684	203,630	297.70	1573.0	525	76.75	2.58	3.77	33.4

The Hoddle region is a complex region incorporating regions of urban and metropolitan Sydney, as well as regional New South Wales. Wollondilly had

the highest response rate based on population. The South Coast also had generally high levels of responses, particularly Shellharbour.

LGA assessment

To commence with a strategic assessment, the specific location of the pin was disregarded and considered only by the Local Government Area that pin was

located in. This allows a broad comparison between the various local government areas. The results are as follows:

LGA	Condition Score	Condition Ratings	Congestion Score	Congestion Ratings	Safety Score	Safety Ratings
Bayside	50.83	405	42.34	382	49.68	404
Bega Valley	43.62	101	51.28	95	37.72	98
Camden	59.80	51	55.36	38	53.85	40
Campbelltown	60.04	293	53.85	282	55.89	291
Eurobodalla	52.09	93	52.38	81	46.85	89
Georges River	59.13	281	44.48	274	50.08	283
Kiama	68.95	29	70.20	21	63.70	26
Shellharbour	58.27	191	50.66	172	46.03	181
Shoalhaven	48.08	467	49.41	430	43.73	445
Sutherland Shire	56.17	578	44.95	556	48.43	554
Wollondilly	36.59	394	56.48	400	35.49	393
Wollongong	56.36	457	50.63	428	50.93	442
Hoddle Region Average	52.60	3,340	49.61	3,159	47.41	3,246
Survey Average	48.92	22,580	49.54	21,521	44.92	21,955

Within the Hoddle NRMA region, the roads in Kiama and Campbelltown are perceived to be in the best reported condition. In contrast, the roads in Wollondilly, Bega Valley and the Shoalhaven are perceived to be in the worst reported condition. The perceived safety of roads in each LGA is broadly comparable to the condition scores.

The roads in Kiama have the worst perceived congestion in the Hoddle region. Note that due to the geographic dispersion of the Hoddle region, expectations of reasonable congestion and condition of the roads may vary significantly between the urban, metropolitan and regional areas.

Road specific

Road	Condition Score	Congestion Score	Safety Score
Appin Road	48.9	46.2	40.3
Bells Line of Road	51.1	44.8	45.3
Belmore Road	51.2	38.4	44.8
Botany Road	41.8	30.5	37.9
Campbelltown Road	50.0	50.9	56.0
Captain Cook Drive	59.6	51.5	41.9
Forest Road	53.2	46.6	41.6
Heathcote Road	54.0	37.2	34.3
Jervis Bay Road	49.6	41.1	42.3
King Georges Road	57.9	38.9	48.2
Lawrence Hargrave Drive	62.0	41.4	51.5
Marsh Street	51.4	21.7	41.7
Memorial Drive	62.3	36.7	57.8
Narellan Road	40.7	32.6	38.5
Old Princes Highway	53.9	46.7	41.4
President Avenue	61.6	42.4	57.5
Princes Highway	54.7	41.2	49.3
Princes Motorway	72.5	36.9	55.6
Remembrance Driveway	47.4	60.2	45.6
Rocky Point Road	62.2	29.4	54.3
Taren Point Road	57.0	33.0	67.2
The Wool Road	31.9	47.6	38.4
Average of all Hoddle Responses	52.6	49.6	47.4

Whilst a high level assessment is beneficial in that it allows a macro-comparison, the survey allowed individuals to highlight and rate a specific section of road. 7 roads received at least 50 votes, accounting for 37% of votes. Roads which received at least 25 votes are outlined below (accounting for 49% of votes in the region).

Whilst there may be different expectations across metro and regional areas, roads such as Narellan Road, Jervis Bay Road, Botany Road and The Wool Road were highlighted as roads to be perceived in poor condition. The Princes Motorway, Rocky Point Road and Memorial Drive were roads perceived to be in relatively good condition.

Other assessments

Determining whether there are patterns in the outputs may support the validity of the data. The condition, congestion, safety and public transport scores were tested for their correlation to determine if there are underlying relationships between the outputs. The r-squared was calculated for the relationships between the categories.

This is reported as a number between 0 and 1. 0 indicates that there is an absence of a relationship between data points, whilst a value of 1 means that there is a perfect relationship between data points.

	Condition	Congestion	Safety	Public Transport
Condition				
Congestion	0.0007			
Safety	0.559	0.028		
Public Transport	0.0017	0.0461	0.0179	

There is a moderate correlation between the perceived condition of a road, and its perceived safety (0.559). In other words, where the condition of the road is perceived as poor, its safety will also be perceived poorly. In contrast, where the

condition of the road is perceived as good, its safety will also be perceived as good. In simplistic terms, the 0.559 output means that 55.9% of variation in the perceived safety of the road can be explained by (attributed to) its condition.

Local streets

It is acknowledged the public did take time to nominate issues that they have with their local streets. As a result of this, the following table highlights a small random selection of local roads and the qualitative comments which were made with them.

Street	Suburb	Comment, verbatim
Kalandar St	Nowra	<ul style="list-style-type: none"> • Just sick of the road being patched every time it rains pot holes • Kalandar and princes Hwy lights high congestion 3 light changes to get out peak times
Jervis Bay Road	Falls Creek	<ul style="list-style-type: none"> • Traffic is queued for kilometres trying to turn right to enter princes highway cars often take risks turning right in front of oncoming traffic travelling south • Traffic is often queued for kilometres to turn right and there is no provision for cars wishing to turn left
Lamont St	Bermagui	<ul style="list-style-type: none"> • Uneven surface potholes. Dangerous in heavy rain
Old Bega Road	Nimmitabel	<ul style="list-style-type: none"> • For a tarred road it is a disgrace
Pambula Beach Road	Pambula Beach	<ul style="list-style-type: none"> • parts of the road have no formal edging have had no maintenance for several years so quite corrugated in parts with no fresh line markings for so long they are almost completely invisible
Crown St	Wollongong	<ul style="list-style-type: none"> • A number of maintenance vents not flush with road cause vehicles to meander to avoid them. • The road is too narrow. Cars are too close to each other. Little room for error
Menangle Road	Menangle	<ul style="list-style-type: none"> • Regular potholes being repaired due to large gravel trucks on a narrow road that is not suitable for large truck and dog combinations. Also there is a difficult intersection with bad visibility and a stop sign where Woodbridge road joins with Finns Road.

Street	Suburb	Comment, verbatim
Bundeena Road	Bundeena	<ul style="list-style-type: none"> Some residents describe it as the worst piece of road in the metropolitan area but whilst that is probably a little emotional it is just so full of repairs on repairs on repairs that essentially all of it bar perhaps 300 metres needs to be totally resurfaced but with a hot mix style of bitumen and not just tar spray and a gravel spread as happened to a couple of sections of it a few years ago as in no time at all it deteriorated rapidly once again and we don't want that to happen again.
Chapman St	Gynea	<ul style="list-style-type: none"> The F6 urgently needs to be built so that ALL Shire residents don't have to battle everyday with commercial vehicles etc. The F6 has been on the drawing board for nearly 80 years!!!!
Forest Road	Peakhurst	<ul style="list-style-type: none"> Intersection at stoney creek road for people turning right from Forest road into stoney creek. Sub standard have to look back over left shoulder thru back corner of car for vehicles veering left into stoney creek. Very dangerous. Does not meet intersection standards.

Cost of road trauma

Costs of road trauma were analysed using Centre for Road Safety data and Economic Parameter values established by Transport for NSW.

The Centre for Road Safety statistics are reported by LGA and cover the 5 years from the beginning of 2014 to the end of 2018. It is important to be cognisant that these figures represent only the reported crashes, and that over the years, reporting requirements around minor crashes have evolved.

The Economic Parameter Values handbook, aggregates the total economic costs of different types of road crashes, and includes all costs associated with an accident

including (for example), emergency response, hospital care, rehabilitation costs and crash accident research reporting and loss of economic productivity. The costs are generally summarised as follows:

• Fatal Accident	\$8,586,767
• Serious Injury Accident	\$574,265
• Moderate Injury Accident	\$97,512
• Minor Injury Accident	\$89,313
• Non-Injury Accident (Towaway only)	\$10,338

LGA	Deaths	Serious Injury	Moderate Injury	Minor Injury	Towaway	Cost of Trauma (\$)	Cost of Trauma/person (\$)	Cost of Trauma/km (\$)	Cost of trauma/person/km (\$)
Bayside	19	553	938	784	1,346	656,119,714	4,204	1,234,836	7.91
Bega Valley	15	114	174	47	171	217,200,312	6,532	65,970	1.98
Camden	8	151	230	167	418	197,072,466	2,519	242,517	3.10
Campbelltown	10	380	603	425	858	409,716,135	2,610	375,198	2.39
Eurobodalla	13	128	290	65	235	221,647,146	5,953	120,112	3.23
Georges River	9	314	550	432	836	358,457,497	2,441	777,903	5.30
Kiama	5	85	54	34	110	101,185,830	4,714	279,076	13.00
Shellharbour	7	194	282	112	410	213,254,799	3,115	417,685	6.10
Shoalhaven	50	345	544	164	626	701,625,223	7,041	266,998	2.68
Sutherland Shire	33	480	744	445	1,083	682,499,778	3,124	610,524	2.79
Wollondilly	28	222	195	71	307	396,446,135	8,171	309,211	6.37
Wollongong	25	837	858	502	1,341	837,692,660	4,114	532,548	2.62

Cost of road trauma continued:

The headline cost of trauma varies in the Hoddle region from over \$800 million within the Wollongong LGA, to around \$100 million in the Kiama LGA. There is significant variance of these due to the population and size of the road network of the respective LGAs. But on average, the cost of road trauma is approximately \$400 million per LGA.

When adjusted per head of population, each LGA is in a much narrower band of approximately \$2,500 to \$8,000 per person. It is also important to remember that some of these LGAs such as Bayside have a significant number of people who are employed within it, but might not be a resident for the purposes of population, and similarly, LGAs on the south coast have a large tourism component to traffic which is also not captured by population.

Some LGAs might have a disproportionately large or small road network, and a road trauma cost/km may be beneficial. On average, each kilometre of road network has around \$330,000 worth of road trauma, on average, with Bega Valley being the safest, and Bayside being the least safe, relatively speaking.

Adjusting for both population and road network size might be considered a pseudo-equitable outcome. On this specific metric, the Bega Valley LGA represents the 'safest' LGA in the NRMA Hoddle region, with a road trauma cost of \$1.98/person/km. In contrast, Kiama is the 'least safe' LGA, with a road trauma cost of \$13.00/person/km. This means that even after accounting for the significant population and road network differential between these LGAs, Bega Valley has around six-and-a-half times less road trauma compared to Kiama.

