



Townsend 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 Townsend Region, which incorporates 42 Local Government Areas across northern regional and rural NSW, including the Northern Tablelands, North Coast and Far North West NSW. 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.

Fiona Simson
Deputy Chair

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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



Townsend

Townsend overview

Armidale Regional

Ballina

Bellingen

Bogan

Bourke

Brewarrina

Broken Hill

Byron

Central Darling

Clarence Valley

Cobar

Coffs Harbour

Coonamble

Gilgandra

Glen Innes Severn

Gunnedah

Gwydir

Inverell

Kempsey

Kyogle

Lachlan

Lismore

Liverpool Plains

Mid-Western Regional

Moree Plains

Nambucca

Narrabri

Narromine

Parkes

Port Macquarie-Hastings

Richmond Valley

Tamworth Regional

Tenterfield

Tweed

Unincorporated NSW

Upper Hunter Shire

Uralla

Walcha

Walgett

Warren

Warrumbungle

Western Plains Regional

Cumulatively, these regions cover an area of nearly 500,000 square kilometres and are home to approximately 900,000 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. More than nearly 3,500 pins were dropped in the Townsend 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 Townsend region:

LGA	2014-2018 Crash History			
	Fatal Crashes	Injury Crashes	Non-injury Crashes	Total Crashes
Armidale Regional	9	315	160	484
Ballina	13	411	216	640
Bellingen	12	166	59	237
Bogan	3	38	20.0	61
Bourke	3	40	18	61
Brewarrina	1	25	8	34
Broken Hill	0	123	70	193
Byron	10	524	284	818
Central Darling	1	72	19	92
Clarence Valley	34	726	349	1,109
Cobar	4	76	24	104
Coffs Harbour	16	741	455	1,212
Coonamble	2	34	16	52
Gilgandra	5	48	29	82
Glen Innes Severn	9	156	58	223
Gunnedah	5	120	59	184
Gwydir	5	63	33	101
Inverell	10	188	68	266
Kempsey	13	334	162	509
Kyogle	8	200	71	279
Lachlan	3	63	21	87

	Fatal Crashes	Injury Crashes	Non-injury Crashes	Total Crashes
Lismore	12	539	385	936
Liverpool Plains	8	70	35	113
Mid-Western Regional	17	365	202	584
Moree Plains	7	161	88	256
Nambucca	12	200	89	301
Narrabri	11	166	83	260
Narromine	14	72	37	123
Parkes	7	187	57.0	251
Port Macquarie-Hastings	29	723	357	1,109
Richmond Valley	20	313	121	454
Tamworth Regional	26	630	319	975
Tenterfield	6	144	42	192
Tweed	26	985	496	1507
Unincorporated NSW	6	52	25	83
Upper Hunter Shire	10	163	82	255
Uralla	4	75	32	111
Walcha	6	90	37	133
Walgett	3	85	19	107
Warren	1	46	21	68
Warrumbungle Shire	12	163	62	237
Western Plains Regional	26	612	338	976
Townsend Total	429	10,314	5,126	15,859

The above table is a staggering reminder of the societal cost of road trauma. In the Townsend region, 429 crashes resulted in someone losing their life, and there were more than 10,300 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 Townsend region, the cost of road trauma aggregated to more than \$6.5 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
Armidale Regional	8,621	29,449	3.42	2481.09	46	0.53	1.56	0.18	1.9
Ballina	484	41,790	86.34	833.17	56	11.57	1.34	2.77	6.7
Bellingen	1,602	12,668	7.91	952.18	73	4.56	5.76	3.60	7.7
Bogan	14,611	2,692	0.18	2075.59	17	0.12	6.32	0.43	0.8
Bourke	41,679	2,834	0.07	3305.05	3	0.01	1.06	0.03	0.1
Brewarrina	19,188	1,651	0.09	1997.06	2	0.01	1.21	0.06	0.1
Broken Hill	170	17,708	104.16	313.00	2	1.18	0.11	0.66	0.1
Byron	567	31,556	55.65	786.37	239	42.15	7.57	13.36	30.4
Central Darling	53,511	1,833	0.03	3569.31	2	0.00	1.09	0.02	0.1
Clarence Valley	10,441	50,671	4.85	3527.11	266	2.55	5.25	0.50	7.5
Cobar	44,065	4,647	0.11	2988.60	8	0.02	1.72	0.04	0.3
Coffs Harbour	1,175	72,944	62.08	1471.36	581	49.45	7.97	6.78	39.5
Coonamble	9,926	3,918	0.39	1761.24	7	0.07	1.79	0.18	0.4
Gilgandra	4,836	4,236	0.88	1571.20	11	0.23	2.60	0.54	0.7
Glen Innes Severn	5,487	8,836	1.61	1360.56	32	0.58	3.62	0.66	2.4
Gunnedah	4,994	12,215	2.45	1729.15	8	0.16	0.65	0.13	0.5
Gwydir	9,453	5,258	0.56	2163.23	4	0.04	0.76	0.08	0.2
Inverell	8,606	16,483	1.92	2309.22	43	0.50	2.61	0.30	1.9

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
Kempsey	3,380	28,885	8.55	1661.41	99	2.93	3.43	1.01	6.0
Kyogle	3,589	8,940	2.49	1450.43	56	1.56	6.26	1.75	3.9
Lachlan	7,431	6,194	0.83	3491.68	4	0.05	0.65	0.09	0.1
Lismore	1,290	43,135	33.44	1286.81	304	23.57	7.05	5.46	23.6
Liverpool Plains	5,086	7,687	1.51	1401.48	20	0.39	2.60	0.51	1.4
Mid-Western Regional	8,737	24,076	2.76	2667.75	85	0.97	3.53	0.40	3.2
Moree Plains	17,930	13,159	0.73	3363.97	42	0.23	3.19	0.18	1.2
Nambucca	1,491	19,212	12.89	1001.72	54	3.62	2.81	1.89	5.4
Narrabri	13,031	13,084	1.00	2862.92	46	0.35	3.52	0.27	1.6
Narromine	5,264	6,444	1.22	1614.05	14	0.27	2.17	0.41	0.9
Parkes	5,958	14,608	2.45	2343.83	32	0.54	2.19	0.37	1.4
Port Macquarie-Hastings	3,686	78,539	21.31	2381.99	499	13.54	6.35	1.72	20.9
Richmond Valley	3,051	22,807	7.48	1364.40	48	1.57	2.10	0.69	3.5
Tamworth Regional	9,892	59,663	6.03	3623.28	111	1.12	1.86	0.19	3.1
Tenterfield	7,332	6,628	0.90	1671.92	31	0.42	4.68	0.64	1.9
Tweed	1,321	91,371	69.17	1570.43	213	16.12	2.33	1.76	13.6
Unincorporated NSW	93,300	1,056	0.01	4919.00	5	0.01	4.73	0.05	0.3
Upper Hunter Shire	8,096	14,112	1.74	1816.40	28	0.35	1.98	0.25	1.5
Uralla	3,230	6,048	1.87	946.93	74	2.29	12.24	3.79	7.8
Walcha	2,621	3,092	1.18	1162.82	21	0.80	6.79	2.59	1.8
Walgett	22,336	6,107	0.27	3112.33	19	0.09	3.11	0.14	0.6
Warren	10,760	2,732	0.25	1556.86	3	0.03	1.10	0.10	0.2
Warrumbungle Shire	12,380	9,384	0.76	2665.47	51	0.41	5.43	0.44	1.9
Western Plains Regional	7,536	50,077	6.65	3353.29	176	2.34	3.51	0.47	5.2

Populated northern coastal regions such as Port Macquarie Hastings, Byron, Lismore and Tweed tended to have the strongest response rates. This is consistent with these areas being relatively small and populated compared

to other areas within the Townsend region. The far north western regions tended to have the poorest response rates, and this is consistent with these areas having vast areas with small populations.

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. Note that caution has to be exercised in interpreting some of the data points due to small sample sizes. The results are as follows:

LGA	Condition Score	Condition Ratings	Congestion Score	Congestion Ratings	Safety Score	Safety Ratings
Armistead Regional	43.33	33	51.63	40	37.18	40
Ballina	53.68	51	57.60	43	47.50	48
Bellingen	44.43	56	56.43	53	44.08	53
Bogan	49.23	17	56.67	12	42.67	12
Bourke	40.00	3	40.00	3	26.67	3
Brewarrina	20.00	1	60.00	2	20.00	1
Broken Hill	-	-	-	-	-	-
Byron	29.10	196	45.06	199	30.61	196
Central Darling	20.00	1	40.00	2	20.00	1
Clarence Valley	41.61	223	53.27	219	38.39	228
Cobar	46.00	6	63.33	6	42.00	6
Coffs Harbour	46.48	542	51.35	460	44.65	480
Coonamble	31.67	6	65.00	6	37.78	5
Gilgandra	44.29	10	54.29	7	40.00	8
Glen Innes Severn	39.72	22	50.00	22	43.62	25
Gunnedah	35.00	7	42.50	6	32.50	6
Gwydir	40.00	4	55.00	4	45.00	4
Inverell	45.04	39	55.92	29	40.88	29
Kempsey	35.37	77	52.46	81	37.30	81
Kyogle	37.23	45	52.64	49	37.40	44
Lachlan	30.00	2	80.00	2	30.00	2
Lismore	35.94	240	49.57	257	31.85	240

LGA	Condition Score	Condition Ratings	Congestion Score	Congestion Ratings	Safety Score	Safety Ratings
Liverpool Plains	27.22	18	56.67	17	31.39	19
Mid-Western Regional	39.48	63	56.90	64	38.19	73
Moree Plains	32.42	35	46.63	38	35.31	35
Nambucca	49.21	47	58.28	43	41.06	44
Narrabri	35.55	37	52.99	41	38.31	40
Narromine	50.00	10	50.00	10	36.67	10
Parkes	35.21	24	61.76	27	41.57	26
Port Macquarie-Hastings	43.59	421	48.88	396	39.43	411
Richmond Valley	47.51	40	49.57	37	46.16	40
Tamworth Regional	43.84	98	56.96	87	42.48	92
Tenterfield	34.27	25	62.33	25	39.13	27
Tweed	50.30	175	56.89	177	47.16	172
Unincorporated NSW	32.00	6	52.00	6	20.00	5
Upper Hunter Shire	37.16	26	51.11	23	32.16	25
Uralla	39.22	72	56.09	71	40.48	69
Walcha	39.27	21	52.38	18	38.57	18
Walgett	35.00	15	66.25	10	31.67	16
Warren	40.00	2	60.00	2	70.00	2
Warrumbungle Shire	39.31	39	55.93	43	36.07	42
Western Plains Regional	42.50	143	55.27	137	42.67	132
Townsend Average	40.96	2,898	52.91	2,774	39.00	2,810
Survey Average	48.92	22,580	49.54	21,521	44.92	21,955

Within the Townsend region, Byron, Parkes and Tenterfield have the roads in the poorest perceived condition. In contrast, Tweed and Ballina have the roads in the best perceived condition. There is a sound correlation between the perceived condition and safety of LGAs which is described later in the report.

Congestion scores are probably not as relevant for comparatively regional areas.

When comparing the averages, roads in the Townsend region tend to be in reported in poorer condition and are less safe compared to the state average.

Road specific

Road	Condition Score	Congestion Score	Safety Score
Armidale Road	38.8	50.9	39.6
Bago Road	42.1	53.2	34.5
Bangalow Road	40.8	43.4	38.5
Bruxner Highway	55.2	55.0	39.7
Bylong Valley Way	33.6	48.5	34.7
Clarence Way	27.9	52.1	31.5
Dinjerra Road	20.7	44.1	22.4
Ewingsdale Road	34.3	27.2	37.6
Fraser Drive	30.8	50.0	35.0
Golden Highway	49.3	56.1	47.3
Lake Road	38.2	41.2	39.1
Mitchell Highway	47.5	40.9	43.7
New England Highway	50.5	56.8	46.1
Newell Highway	54.1	62.4	57.9
Nimbin Road	28.2	48.3	25.2
Ocean Drive	46.9	38.0	44.1
Orara Way	43.3	51.9	35.8
Oxley Highway	48.9	51.6	47.3
Pacific Highway	47.8	47.9	46.9
Rangari Road	20.0	21.8	20.5
Thunderbolts Way	40.0	56.0	42.7
Tweed Coast Road	47.2	53.5	40.7
Waterfall Way	48.3	52.1	43.7
Werris Creek Road	33.0	68.9	40.4
Wyrallah Road	30.7	52.1	31.8
Average of all Townsend Responses	41.0	52.9	39.0

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. 17 roads received at least 30 votes, accounting for 37% of votes. Roads which received at least 20 votes are outlined to left (accounting for 42% of votes in the region).

Of these roads, the major highways tended to be reported in the best condition, with the Pacific Highway, Oxley Highway, Newell Highway and Mitchell Highway all reporting above average condition scores. Roads reported to be in poor condition included Dinjerra road, Rangari Road, Clarence Road and Nimbin Road to name a few.

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
Bruxner Highway	Boggabilla	<ul style="list-style-type: none"> • Surface deteriorated alignment unsafe very bumpy. for a major highway it's a disgrace • Vehicles slow down due to the road condition causing lines of traffic in 100kph zones • With the number of heavy vehicles using this so called highway and its condition creates the ideal scenario for a major accident
Tregeagle Road	Mismore	<ul style="list-style-type: none"> • Lots of large potholes narrow shoulders erratic edges making pulling off difficult • Easy to get stuck behind slow vehicles due to poor visibility narrow roads and not much overtaking opportunity • Poor visibility coupled with poor road condition often means you have a choice between dodging the potholes and risking head-on traffic also dodging potholes as the centre of the road is the only really decent spot for much of this road
Thunderbolts Way	Uralla	<ul style="list-style-type: none"> • Unsafe surface and unsafe corners over the Salisbury Hill • Traffic flows are OK for careful drivers. Lots of heavy traffic too. • Corners have poor camber and bad edges which unsettle vehicles. Not safe for visitors and this is a major tourist link to Newcastle/Sydney.
Narromine Road	Dubbo	<ul style="list-style-type: none"> • Needs overtaking lanes • Cannot overtake, needs overtaking lanes
Bylong Valley Way	Murrumbo	<ul style="list-style-type: none"> • Too scary to travel during school holidays due to caravans and trucks • One slow moving caravan makes the trip even more scary. • Large pot holes slow caravans and tip trucks

Street	Suburb	Comment, verbatim
New Winton Road	Westdale	<ul style="list-style-type: none"> • Too narrow in places to have marked lines but we have heavy loaded trucks using this road the fringes are deteriorating braking and badly damaged due to the heavy truck loads and not maintained by the Tamworth Regional Council. Also the section in front of the Tamworth Airport is unattractive to new visitors to the city • Its only free flowing if cars get off the narrow road for passing • A colvert that is too narrow to pass (has give way from the west) damaged pavement narrow road and several S bends and heavy trucks makes this road a disaster waiting to happen
Terranora Road	Tweed	<ul style="list-style-type: none"> • The road is too narrow with poor shoulders. Many cyclists use this road because of its hill climbs but there is too little room for cyclists and motor vehicles. • Because of long stretches of unbroken lines traffic can become congested.
Helen Street	Golden Beach	<ul style="list-style-type: none"> • This is one of many many roads in Byron Shire that are in a deplorable dangerous condition
Wyrallah Road	Tuckurimba	<ul style="list-style-type: none"> • The road surface in many places is potholed and dangerous with. 100kmh speed limit! • Totally potholed in sections - is very unpleasant/unsafe to drive on
Linden Avenue	Toormina	<ul style="list-style-type: none"> • A highly-trafficed intersection used extensively as it serves 3 local schools and is a major intersection linking a growing residential area with a major shopping centre. The intersection is the site of many minor accidents the surface is chopped up and on many occasions potholes measuring up to 1 metre by 30-50 cm 8cm deep go unattended for up to 3-4 days before being filled with bitumen. The bitumen lasts for a week-or-so before the holes reappear.

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	Total	Cost of Trauma (\$)	Cost of Trauma /person (\$)	Cost of Trauma /km (\$)	Cost of trauma /person/km (\$)
Armidale Regional	9	99	180	36	160	484	156,554,646	5,316	63,099	2.14
Ballina	13	147	197	67	216	640	223,471,769	5,347	268,218	6.42
Bellingen	12	72	77	17	59	237	154,024,971	12,159	161,760	12.77
Bogan	3	16	15	7	20.0	61	37,243,172	13,835	17,943	6.67
Bourke	3	24	10	6	18	61	41,239,743	14,552	12,478	4.40
Brewarrina	1	10	8	7	8	34	15,817,408	9,581	7,920	4.80
Broken Hill	0	31	82	10	70	193	27,414,989	1,548	87,588	4.95
Byron	10	138	280	106	284	818	204,822,770	6,491	260,465	8.25
Central Darling	1	36	22	14	19	92	32,852,375	17,923	9,204	5.02
Clarence Valley	34	266	362	98	349	1109	492,364,548	9,717	139,594	2.75
Cobar	4	45	20	11	24	104	63,369,788	13,637	21,204	4.56
Coffs Harbour	16	283	329	129	455	1212	348,211,882	4,774	236,660	3.24

LGA	Deaths	Serious Injury	Mod Injury	Minor Injury	Towaway	Total	Cost of Trauma (\$)	Cost of Trauma/person (\$)	Cost of Trauma/km (\$)	Cost of trauma/person/km (\$)
Coonamble	2	15	16	3	16	52	27,781,048	7,091	15,774	4.03
Gilgandra	5	14	22	12	29	82	54,490,367	12,864	34,681	8.19
Glen Innes Severn	9	57	81	18	58	223	120,119,718	13,594	88,287	9.99
Gunnedah	5	39	64	17	59	184	73,699,201	6,033	42,622	3.49
Gwydir	5	25	29	9	33	101	61,263,279	11,651	28,320	5.39
Inverell	10	67	96	25	68	266	136,640,386	8,290	59,172	3.59
Kempsey	13	106	191	37	162	509	196,104,190	6,789	118,035	4.09
Kyogle	8	104	63	33	71	279	138,242,279	15,463	95,311	10.66
Lachlan	3	29	24	10	21	87	45,864,502	7,405	13,135	2.12
Lismore	12	253	201	85	385	936	279,501,896	6,480	217,205	5.04
Liverpool Plains	8	29	33	8	35	113	89,642,051	11,662	63,962	8.32
Mid-Western Regional	17	139	185	41	202	584	249,587,703	10,367	93,557	3.89
Moree Plains	7	48	72	41	88	256	99,264,530	7,543	29,508	2.24
Nambucca	12	87	86	27	89	301	164,719,824	8,574	164,436	8.56
Narrabri	11	69	79	18	83	260	144,247,858	11,025	50,385	3.85
Narromine	14	33	29	10	37	123	143,268,967	22,233	88,763	13.77
Parkes	7	40	124	23	57.0	251	97,812,922	6,696	41,732	2.86
Port Macquarie-Hastings	29	254	348	121	357	1109	443,311,268	5,644	186,110	2.37
Richmond Valley	20	157	115	41	121	454	278,021,556	12,190	203,769	8.93
Tamworth Regional	26	213	340	77	319	975	388,903,390	6,518	107,335	1.80

LGA	Deaths	Serious Injury	Mod Injury	Minor Injury	Towaway	Total	Cost of Trauma (\$)	Cost of Trauma/person (\$)	Cost of Trauma/km (\$)	Cost of trauma/person/km (\$)
Tenterfield	6	57	51	36	42	192	92,876,283	14,013	55,551	8.38
Tweed	26	313	491	181	496	1507	472,172,580	5,168	300,665	3.29
Unincorporated NSW	6	26	19	7	25	83	69,187,861	65,519	14,065	13.32
Upper Hunter Shire	10	63	77	23	82	255	132,456,704	9,386	72,922	5.17
Uralla	4	27	41	7	32	111	54,806,222	9,062	57,878	9.57
Walcha	6	40	48	2	37	133	79,732,910	25,787	68,568	22.18
Walgett	3	44	22	19	19	107	55,066,594	9,017	17,693	2.90
Warren	1	25	18	3	21	68	25,183,645	9,218	16,176	5.92
Warrumbungle Shire	12	71	62	30	62	237	153,180,109	16,324	57,468	6.12
Western Plains Regional	26	193	323	96	338	976	377,653,755	7,541	112,622	2.25

The headline cost of trauma varies in the Townsend region from nearly \$500 million in Clarence Valley, to around \$16 million in Brewarrina. 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 \$155 million per LGA.

When adjusted per head of population, each LGA is in a narrower band of generally approximately \$6,000 to \$15,000 per person, with a few outliers. Some LGAs might have a disproportionately large or small road network, and a road trauma cost/km may be beneficial. There is a significant amount of variance

from around \$8,000/km in Brewarrina to \$300,000/km in Tweed.

Adjusting for both population and road network size might be considered a pseudo-equitable outcome. On this specific metric, Tamworth Regional LGA represents the 'safest' LGA in the NRMA Townsend region, with a road trauma cost of \$1.80/person/km. In contrast, Walcha is the 'least safe' LGA, with a road trauma cost of \$22.18/person/km. This means that after accounting for the difference in the size of the road network and population, the Walcha LGA has nearly 15 times more road trauma than Tamworth Regional Council LGA.

