

MOTORCYCLE SAFETY IN NSW

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New South Wales

IPWEA

INSTITUTE OF PUBLIC WORKS
ENGINEERING AUSTRALASIA



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9 September 2015

Mr Greg Aplin
Chair
Staysafe (Joint Standing Committee on Road Safety)
Parliament House
Macquarie St
Sydney NSW 2000

Dear Mr Aplin,

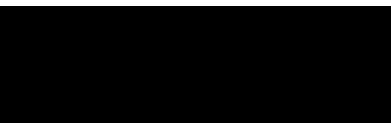
Submission to Staysafe Inquiry into Motorcycle Safety in NSW

The Institute of Public Works and Engineering Australasia (NSW Division) fully supports the need for a Parliamentary Inquiry into Motorcycle Safety in New South Wales (NSW).

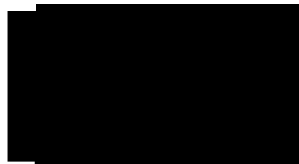
IPWEA (NSW) also appreciates the invitation to provide this submission to the Staysafe Committee. The submission deals with each of the Terms of Reference based on a wide range of inputs. We would welcome the opportunity to address the Inquiry to provide further detail on the issues raised within this submission.

Please do not hesitate to contact Mick Savage on tel: [REDACTED] or email [REDACTED] in relation to this submission.

Yours faithfully,



Mr Garry Hemsworth
Director IPWEA NSW Board



Mr Mick Savage
Roads & Transport Directorate Manager

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**STAYSAFE (Joint Standing Committee on Road Safety)
Inquiry into Motorcycle Safety in New South Wales**

Submission by

**INSTITUTE PUBLIC WORKS ENGINEERING AUSTRALASIA
(NSW Division) Roads & Transport Directorate**

9 September 2015

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Executive Summary

The Institute of Public Works Engineering Australasia (NSW Division) is the leading association representing Engineers, Public Works Officers and Road Safety Officers working in, or providing services to local government and the NSW Government. IPWEA (NSW) is ideally placed to advocate for road safety on behalf of local government through the knowledge and expertise of the NSW Roads & Transport Directorate and IPWEA (NSW) Road Safety Panel.

It is often overlooked that local roads comprises 85% of the road network (Verity, S & Roorda, J 2014). It is also worth remembering that over the 6 years from 2008 to 2013, there were 1,480 fatalities and 100,413 injured on roads managed by regional local councils in NSW. Deaths and injuries on these roads cost these regional communities up to \$15 billion over the 6 year period (NRMA 2012).

Local government is a key partner with state and federal governments in delivering safer road services and community-based road safety programs. Roads to Recovery (R2R) is one example of federal and local government partnerships providing direct benefits to local communities. Improving the surface condition, width and alignment of local roads, upgrading dangerous intersections and better signage, all make a real difference to road safety (ALGA 2015).

Taking into account input by a wide range of sources including the IPWEA (NSW) Board, IPWEA (NSW) staff, IPWEA (NSW) Road Safety Panel members, council members and experienced motorcycle riders and trainers, this submission calls for action on improving motorcycle safety in NSW in the following areas:

- The collection and timely dissemination of road crash data to local councils and other stakeholders.
- Funding the Local Government Road Safety Program (LGRSP) beyond the current 3 year cycle.
- The attitudes of riders, drivers and other road user groups towards each other.
- Usage rates of protective clothing among motorcycle and scooter riders.
- The regulation of motorcycle protective gear and the supply and use of motorcycle helmets across all states and territories.
- The number of motorcycles being purchased with ABS and other primary safety features.
- Funding for the growing infrastructure backlog in NSW and maintenance going forward.

- The number of hours of supervised training required for Learner motorcycle riders.
- Regional Learner riders having greater access to rider training programs.
- More facilities for learner motorcycle riders to acquire additional experience in an off road environment.
- Encourage returning riders to complete a refresher or safety riding course.

Strategic actions in these areas would likely result in the greatest benefits in terms of reduction in the number of road crashes involving motorcycles and overall improvements in rider safety.

Introduction

IPWEA (NSW) recognises that motorcyclists (both riders and pillion passengers) are a vulnerable road user group. Motorcyclists lack the same level of protection as drivers and passengers of motor vehicles, nor do most motorcyclists benefit from primary safety measures such as ABS and traction control. Riding a motorcycle is a more difficult task than driving a car as riders must also rely on their physical ability to balance, operate both hand and feet controls, and monitor the surrounding environment simultaneously. It only takes a momentary loss in concentration or unexpected change in road conditions to result in an accident or disastrous event.

When a motorcyclist is involved in a crash, they are much more likely to be killed or seriously injured than other road user groups. Motorcyclists killed and injured are representative of all demographic groups although Learner / inexperienced and returning riders are especially vulnerable. With an increasing uptake of motorcycle and scooter riding across Australia in recent years, rider safety is justifiably an area of concern for the Staysafe Committee, local and state government, road safety practitioners and advocates.

Interestingly, when compared with licence, registration and population figures, trauma rates across most road user groups have improved over time. Even casualty rates involving motorcyclists have shown annual decreases over the period 2005-2013. Casualty rates are calculated as the number of fatalities / injuries per 100,000 of population. These are generally considered by road safety researchers and practitioners as better metrics for progress in road safety (de Rome 2014, slide 4). Contextually, cars have also become much safer over the last 10 years including improvements in vehicle technology and passive safety features.

IPWEA therefore recommends caution when drawing conclusions about whether motorcycle riding is becoming a more dangerous activity. The risks of drawing such conclusions were well articulated by the Victorian Road Safety Committee in 2012 when it reported that the misinterpretation of motorcycle crash data undermines confidence for policy makers and the community and offends the motorcycling community, leads to flawed conclusions and guides decision makers to initiate policy changes and introduce new regulatory interventions that may not address the underlying issues or are inappropriate (Parliament of Victoria 2012, p. 46).

Even so, IPWEA (NSW) is pleased that the Staysafe Committee's findings and recommendations will be used to shape the next three year motorcycle safety action plan (Parliament of NSW 2015). This will build upon the NSW Government's existing commitment to motorcycle safety as outlined in its ten year Motorcycle Safety Strategy 2012-2021. IPWEA (NSW) appreciates the invitation to provide this submission to the Staysafe Committee and trust that it will assist the Committee in its deliberations.

Background

Following a referral from the Minister for Roads, Maritime and Freight, The Hon. Duncan Gay, MLC, the Staysafe Committee resolved to conduct an inquiry into motorcycle safety in NSW. On 12 August 2015 the Staysafe Committee called for submission to its inquiry.

The Committee's Terms of Reference are to inquire into and report on motorcycle safety in New South Wales with particular reference to:

- a. Trends of motorcycle usage, injury and fatality in NSW;
- b. Crash and injury risk factors including rider (and driver) behaviour, conspicuity and vehicle instability;
- c. The effectiveness of the current action plan to enhance motorcycle safety including communications and education campaigns, road environment improvements, regulation of safety equipment and gear;
- d. Strategies of other jurisdictions to improve motorcycle safety;
- e. Licensing and rider training; and
- f. Any other related matters.

This submission is structured in relation to the inquiry's Terms of Reference (TOR). IPWEA (NSW) provides recommendations where appropriate for consideration by the Staysafe Committee.

About IPWEA NSW Division

IPWEA (NSW) is a not for profit, membership based, professional organisation representing engineers and others involved in the provision of public works and services predominantly in the local government sector.

IPWEA (NSW) Mission is:

“To enhance the quality of life of NSW communities through excellence in public works and services. This is achieved through our professional association that effectively informs, connects, represents and leads public works professionals for NSW.”

This submission has been prepared by the NSW Roads & Transport Directorate on behalf of the Board, council members and representatives of the IPWEA (NSW) Road Safety Panel.

The Roads and Transport Directorate was set up by IPWEA (NSW) in conjunction with Local Government NSW in 2004 to provide support to its members working in local government across the state. It is supported financially by membership contributions from local councils across NSW.

IPWEA (NSW) Road Safety Panel

The Road Safety Panel is a committee of IPWEA (NSW) and is managed by the Roads and Transport Directorate. The Panel’s goal is to make a significant and measurable contribution to improve road safety awareness, knowledge and expertise in NSW. Membership of the Panel is by invitation and includes representatives from Transport for NSW, ARRB Group, LG NSW, AITPM, urban and rural councils. A Panel representative appeared before the *Parliamentary Staysafe Committee inquiry into Pedestrian Safety 2009*. Input into this submission has also been sought from members of the Panel.

Response to Specific Inquiry Terms of Reference

The following are the IPWEA's comments relating to the Terms of Reference:

a. Trends of motorcycle usage, injury and fatality in NSW

IPWEA (NSW) relies on data collected by state and federal government agencies in relation to trends in motorcycle usage and road crashes including injury and fatality crashes - as do NSW local councils, consultants, road safety researchers and other organisations. The Centre for Road Safety, under the auspice of Transport for NSW (TfNSW), collates and provides NSW road crash statistics (previously the responsibility of the Roads & Traffic Authority) using data from the NSW Police Force. Its crash database, CrashLink, is used for road safety analysis and research work, strategic planning and policy work.

IPWEA (NSW) previously raised concerns with the Staysafe Committee regarding the collection, timeliness and usability of crash data as part of our submission to the *2009 Parliamentary Joint Standing Committee on Road Safety regarding Pedestrian Safety*. That submission focused mainly on the methods of capturing crash casualty data and the lack of agreed definitions of injury severity (IPWEA 2009) and the key issues are summarised below:

1. Lack of data regarding the severity of injury crashes which limits local councils' ability to calculate the costs of crashes and prioritise treatments.
2. The location of the crashes are not always pinpointed as the data is not always entered by Police at the scene of the crash making it difficult to accurately determine the cause of crashes later on.
3. Under reporting of crashes, especially off road crashes, as many people do not want Police involved in what they consider minor incidents or to avoid possible prosecution.

These issues continue to inhibit the ability of councils and policy makers to make truly informed decisions and develop strategies to address motorcycle safety. These are not the fault of the NSW Police, rather are more a reflection on the way the data is collected. It is also a matter of Police resourcing. As of October 2014 Police are no longer required to attend minor crashes and are now only called to attend and investigate crashes when a person is killed or injured, parties fail to exchange details or a driver is under the influence of alcohol or drugs.

IPWEA initiated a joint project with the Ambulance Service of NSW to overcome identified deficiencies in data. An agreement was reached between IPWEA (NSW) and the Ambulance Service of NSW in September 2009 to work collaboratively on a project to identify the costs to communities of injuries due to vehicle crashes. Unfortunately a lack of funding and staff turnover prevented the project proceeding beyond feasibility stage.

The Staysafe Committee made the following recommendation as part of its final report on the 2009 inquiry:

“the Roads and Traffic Authority, in consultation with the Institute of Public Works Engineering Australasia, the NSW Institute of Trauma and Injury Management, the NSW Police Force and NSW Health, develops agreed definitions of injury severity, based on internationally recognised standards of classification. In addition to obtaining uniform data, this will also assist in estimating the costs of such injuries, enabling the design of improved treatment options and appropriate countermeasures based on reliable data”
(Staysafe Committee 2009 p. xvii).

In its response to the Committee’s recommendations, the former Roads & Traffic Authority (RTA) undertook to overview the process to distinguish between serious and minor injury data in NSW and consult with Associations and Research Centres to investigate the definitions of injury severity and to determine a process to estimate serious vs. minor injuries. The RTA also noted that definitions of injury and severity need to be determined and agreed in a national context (Borger 2010).

Despite the RTA’s commitment to investigate this issue, the need for improved crash data was again highlighted as part of the Staysafe Committee’s final report on its *2010 Inquiry into Vulnerable Road Users, specifically motorcycle and bicycle safety* (Staysafe Committee 2010 p. v), although with a greater focus on the lack of centralised data collection for off-road injuries and fatalities. Other road safety events, conferences and inquiries have also resulted in recommendations regarding improvements to the collection and dissemination of road crash data including the 2008 *Motorcycle and Scooter Summit* held in Canberra and the 2012 Victorian Parliamentary Road Safety Committee Inquiry. Data collection and analysis was rated as the top priority by the delegates at the Canberra summit and was also key theme at the 2012 Victorian *Inquiry into Motorcycle Safety*.

The Victorian Inquiry addressed the issue of ‘data quality’ in some depth including identifying gaps or changes in data classification, deficiencies in data gathering, and lack of data generally (Parliament of Victoria 2012, p. 28). The Inquiry also found that there is limited access to, and sharing of, data between organisations that gather and store motorcycle trauma data (p. 32). These findings are reflective of issues raised by IPWEA (NSW) in 2009 within its submission to the *Staysafe Inquiry into Pedestrian Safety*.

Recommendation:

IPWEA (NSW) recommends improved collection and reporting of crash data in NSW and across all states and territories. A better understanding of the extent of crash related injuries in particular would assist local councils and communities to determine exactly where the burden of injury is occurring and how much it is costing. This would also greatly assist councils to prioritise roads upgrades and develop other strategies - such as behavioural programs - to prevent or lessen the effects of motorcycle crashes.

Motorcycle usage in NSW

Figure 1 below presents motorcycle registrations in Australia 2006-2015.

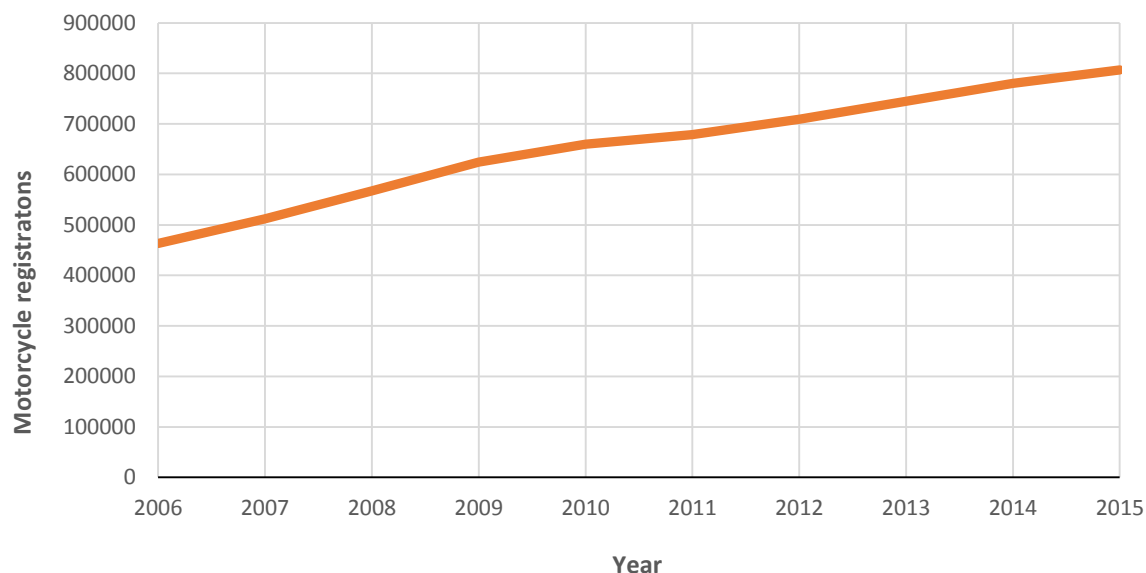


Figure 1. Motorcycle registrations in Australia 2006-2015

According to the Australia Bureau of Statistics' (ABS) Motor Vehicle Census 2015, there are now over 18 million registered vehicles in Australia including 807,215 motorcycles or about 4.5% of all registered vehicles. While registrations of passenger vehicles and light commercial vehicles continue to far outweigh the number of motorcycle registrations, motorcycle registrations have shown the fastest growth – 22.3% - of any vehicle type between 2010 and 2015. New South Wales has the most motorcycle registrations with 222,111, followed by Queensland with 187,167 (ABS 2015). In New South Wales, motorcycles account for just under 4% of registered motorised vehicles. It is also estimated that there are about as many unregistered motorcycles in NSW used solely for off road riding as there are registered motorcycles (MCC 2010, p 3).

The growing popularity of motorcycles and scooters in Australia is attributed to a number of factors including increased fuel and parking costs, lack of parking, traffic density, environmental benefits and even demographic change. Motorcycle riding also continues to be an important leisure activity across Australia with many people riding for sheer enjoyment. The popularity of scooters is particularly evident across Sydney's inner / city suburbs with a growing number of young men and women choosing to ride to and from their workplace. State government and local councils are also contributing to their rise in popularity by developing and promoting rider friendly policies and strategic plans. The City of Sydney Council (CoS), for example, offers motorcycle and scooter riders free parking at any of the parking meters within the local government area (LGA). The CoS has also more than trebled the number of

untimed on-street motorcycle spaces in central Sydney where rides can park all day free of charge. A motorcycle and scooter on street parking map is available for download from the Council’s website (CoS 2015).

Motorcycle fatalities

Figure 2 below presents the trend in road crash related fatalities in NSW, 1996-2014.

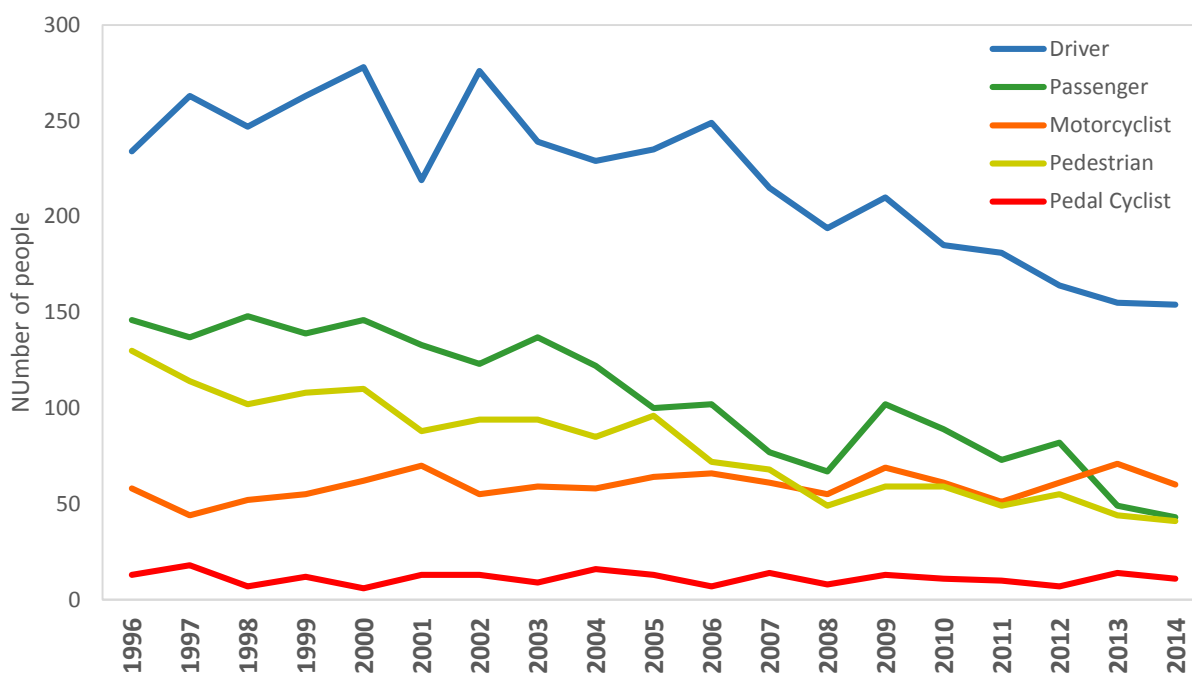


Figure 2. Fatality Trends by Road User NSW, 1996 to 2014 (provisional)

Over the period 1996 to 2014, 1,132 motorcyclists have died on NSW roads accounting for 12% of total road deaths. Motorcycle riders accounted for the majority of motorcyclists killed, although a number of motorcycle pillion passengers were also killed each year. The majority of motorcyclists killed in NSW were male (typically over 90% each year) and aged 30+. In 2013, more than half (56%) of all motorcyclists killed in NSW were aged over 40 and almost a quarter (23%) were aged 50-59 (TfNSW 2013).

Since the year 2000 - when the total number of people killed on NSW roads peaked at over 600 - the number of people killed each year has significantly decreased. By 2014, the road toll had almost halved with 309 people killed on NSW roads resulting in the lowest annual fatality toll in over 90 years. In particular, the number of drivers and passengers killed each year have greatly decreased. Car passengers accounted for 25% of all fatalities in the year 2000 but dropped to 14% of all fatalities by 2014. In contrast, the number of motorcyclist deaths in NSW per year has remained steady and as a proportion of all road deaths has actually increased. In 2005, the proportion of motorcycle deaths was 13% and by 2013 it had risen to 21%.

By way of comparison, the proportion of motorcyclist deaths across the United States of America was 14% in 2013 (NHTSA 2015).

Across Australia, 2,231 motorcyclists have died over the last decade (2005-2014) or on average 223 motorcyclists died per year. The majority of those deaths (28%) have occurred in NSW, the state with the largest population and number of motorcycle registrations, followed closely by Queensland (25%) and Victoria (19%). Data for most states and territories shows flat or slight upward trend over the 10 year period. Table 1 below presents motorcycle fatality trends across each Australian state and territory 2005 to 2014 (Bitre database 2015).

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
2005	64	48	64	19	21	7	2	8	233
2006	66	47	58	22	31	5	6	3	238
2007	61	45	73	8	37	7	3	3	237
2008	55	43	72	17	36	8	10	4	245
2009	69	38	60	15	31	8	1	2	224
2010	61	49	50	16	35	3	5	5	224
2011	51	49	45	21	28	3	2	3	202
2012	61	41	60	15	34	5	4	3	223
2013	71	41	45	12	25	11	6	2	213
2014	60	30	37	11	43	3	6	2	192

Table 1. Annual numbers of motorcycle deaths by jurisdiction

Crash rates

When analysing crash trends, it is also important to be aware that the fatality / injury rates - calculated as the number of fatalities / injuries per 100,000 of population - have shown annual decreases over the period 2005-2013. These are generally considered by road safety researchers and practitioners as better metrics for progress in road safety (de Rome 2014, slide 4).

This issue was also addressed as part of the Victorian *Inquiry into Motorcycle Safety* in 2012. In its final report the Victorian Road Safety Committee found that the subjective use of data is a major concern for individual motorcycle riders and motorcycling groups. By focusing on the number of fatalities and injuries compared to other road user groups, especially motor vehicle passengers and drivers, the general community and media may have formed a false impression of motorcyclist behaviour. Contextually, cars have become much safer through improvements in vehicles technology including passive safety features over the last 10 years (Parliament of Victoria 2012, p 370).

Motorcycle injuries

Figure 3 below presents injury trends in NSW 2009 to 2013.

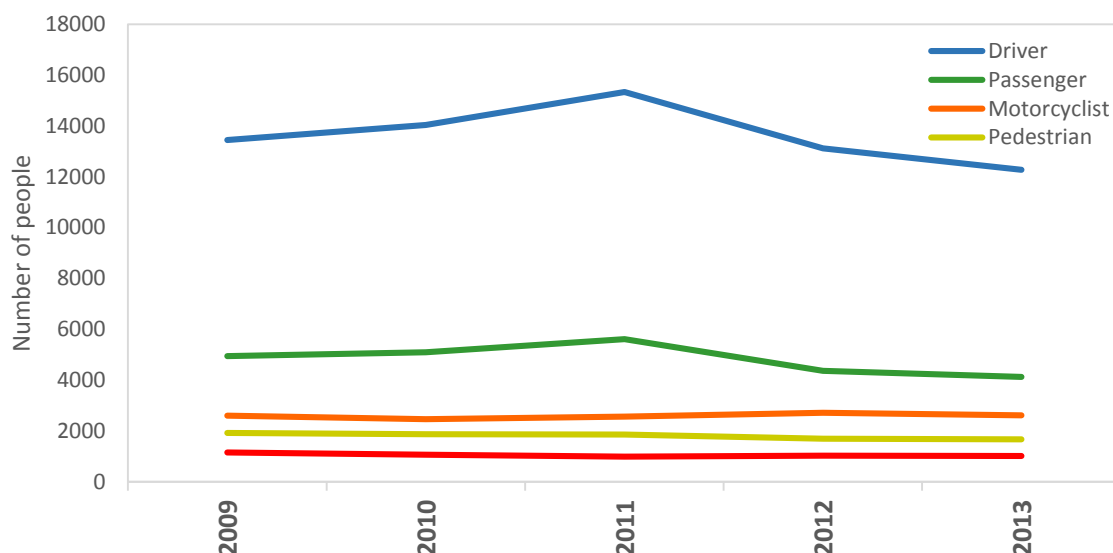


Figure 3. Injury Trends by Road User NSW, 2009-2013

In 2013, there were 2,612 motorcyclists injured on NSW roads accounting for 12% of total road injuries. In comparison, 12,270 motor vehicle drivers were injured on NSW roads in 2013 accounting for 57% of total road injuries. While IPWEA (NSW) was not able to determine how many motorcyclists or drivers were seriously injured, we do know however that in 2013 there was a higher ratio of motorcyclists killed than injured in comparison to all other road user groups as shown in table 2 below (TfNSW 2013).

Year	Driver K/I %	Passenger K/I %	Motorcyclist K/I %	Pedestrian K/I %	Pedal Cyclist K/I %
2009	46 / 56	23 / 21	15 / 11	13 / 8	3 / 5
2010	46 / 57	22 / 21	15 / 10	15 / 8	3 / 4
2011	50 / 58	20 / 21	14 / 10	13 / 7	3 / 4
2012	44 / 57	22 / 19	17 / 12	15 / 7	2 / 4
2013	47 / 57	15 / 19	21 / 12	13 / 8	4 / 5

Table 2. Comparison of proportion of fatalities to injuries across user groups

There is information available on trend estimates of the numbers of persons seriously injured in crashes in Australia until 2008-09. In 2012, the Australian Institute of Health and Welfare (AIHW) prepared a report titled *Trends in serious*

injury due to land transport accidents, Australia 2001 to 2008-09. In the report serious injury is defined as when the person was admitted to hospital for their injury. According to the AIHW, over the period 2001–2009 all road user groups except pedestrians showed upward trends in the number of persons seriously injured with high threat to life.

Those injured as motorcyclists and pedal cyclists recorded the highest rate of increase with average annual rates of increase of 6.9% and 6.8% respectively. In 2000-2001, 1,072 motorcyclists across Australia were seriously injured with high threat to life and by 2008-09 this figure had almost doubled (45%) to 1,959. In NSW, the total number of motorcyclists seriously injured over same period increased by 44%. While the data confirms that motorcyclists are over represented in serious injury crashes in NSW, it does not provide the level of detail to enable councils and local communities to address site specific road safety issues. There is also no national collection of the numbers of motorcycle injuries or injury crashes for purposes of comparison.

Recommendation

IPWEA (NSW) recommends the establishment of a national database on injury numbers for all vulnerable road users.

b. Crash and injury risk factors including rider (and driver) behaviour, conspicuity and vehicle instability

Figure 4 below presents the types of motorcycle crashes in NSW 2013.

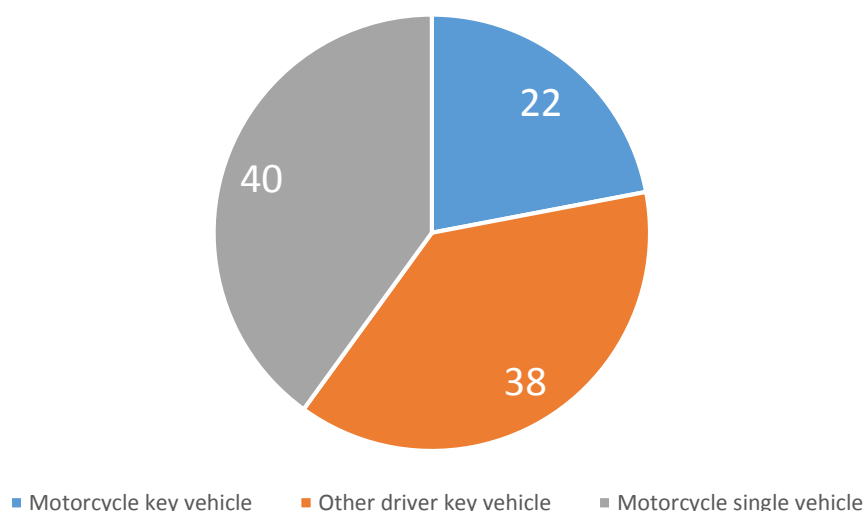


Figure 4. Types of motorcycle crashes NSW 2013

There were 2,936 crashes involving a motorcycle rider in 2013. This includes all fatal, injury and non-injury crashes. In comparison, there were 2,928 crashes involving a motorcycle in 2009. It appears that the increased number of motorcycles on NSW roads over the 5 year period 2009-2013 has not led to a significant increase in total crashes. Interestingly, a high proportion (40%) of motorcycle crashes are single vehicle crashes. In comparison, only 15% of car crashes are single vehicle crashes. This means that the majority of motorcycle crashes involve another vehicle. In more than a third of these crashes (38%) the crash is due to the actions of the other driver (de Rome 2014, slide 6).

Feedback from experienced riders suggest that many of the reported single vehicle motorcycle crashes actually involved another vehicle. In some instances a car or truck driver may be unaware that a motorcyclist has collided or nearly collided with their vehicle. An example location where this occurs is the Royal National Park in Sydney's south where a rider travelling at high speed on a winding road collides or nearly collides with a car inadvertently travelling close or the centre lines. On such occasions the driver may not be aware there has been a collision or near collision and therefore fails to stop or even brake. Upon inspection it would appear that the motorcyclist simply lost control on a curved road when travelling at high speed.

Rural vs Urban roads

There are differences in motorcycle crashes between rural and urban roads. In rural NSW many motorcyclists are killed when they lose control on a curved road at a high speed and hit an object. In comparison, many motorcyclists killed in urban areas were killed when they struck an object at lower speed, or in a crash involving another vehicle at an intersection (TfNSW 2012, p. 15).

Behavioural factors

Speed, alcohol & drugs and fatigue are all known factors in serious road crashes. Vulnerable road users such as motorcyclists are especially at risk of death or serious injury when a crash involves one or more of these factors. The literature tells us that motorcycle riders may be more vulnerable to alcohol and drug effects than other motor vehicle drivers due to the effects on balance, coordination and vehicle control skills (Christie 2014, p. 20). It is also established that speeding is the biggest killer on NSW roads contributing to 40 per cent of all road fatalities 2008-2012 (TfNSW 2015a).

Council Road Safety Officers (RSOs) do a fantastic job working with local communities, engineers, planners and other stakeholders to address these behavioural road safety issues. Transport for NSW (TfNSW) and Roads and Maritime Services (RMS) also work in partnership with local councils to part fund the Local Government Road Safety Program (LGRSP) including project funding and up to 50% funding for the RSO positions. The funding contribution is capped at \$60,000 per annum. The current funding agreement expires on 30 June 2017 leading to uncertainty about the future of the LGRSP among RSOs and councils (TfNSW 2015, p. 2 & 3).

Recommendation

IPWEA (NSW) recommends funding the Local Government Road Safety Program beyond the current 3 year cycle so that RSOs can continue working with local communities to address behavioural road safety factors with reference to motorcycle safety.

Rider attitude

Rider attitude appears to play an important part in risk taking among motorcycle riders. Some Australian and international studies point to higher levels of risk taking among motorcycle riders relative to car drivers (Elliot, Baughan and Sexton 2007; Johnston, Brooks and Savage 2008). In 2010, Sweeney Research also started a tracking study on behalf of the Transport Accident Commission (TAC) in Victoria that focused on the behaviour and attitudes of Victorian motorcycle / motor scooter riders. The research provided new insights into rider attitudes. For example, the proportion of motorcyclists claiming to 'never' speed is considerably higher than the general population average (24% vs. 14% respectively) (Hennessy C, Govan C & Lowery R 2010, p. 4). It may be worthwhile replicating this research in NSW.

While the majority of riders do the right thing on our roads, there is a perception within the community & media that there is a cohort of 'ratbag' riders. Quite often it is these riders who give all riders a bad reputation. Generally, people's perceptions are formed by their own experiences and what they hear or read in the media. This is also evident in the debate on cars vs. push bikes. It therefore needs to be reinforced that bicycle riders, drivers, motor bike riders and pedestrians are all legitimate users of the road system and we need to be mindful of each other.

Recommendation

The IPWEA (NSW) recommends the development of public education campaigns aimed at improving the attitudes of riders and drivers towards each other.

c. The effectiveness of the current action plan to enhance motorcycle safety including communications and education campaigns, road environment improvements, regulation of safety equipment and gear

Feedback from member councils and motorcyclists on the NSW government's Motorcycle Safety Strategy 2012-2021 has been generally positive. IPWEA (NSW) understands that the Strategy was developed in consultation with key stakeholders including motorcycle associations, councils and industry. The Strategy is based upon a Safe Systems approach to road safety that includes safer road surfaces and reducing hazards, road alignment, safer people, safer speeds and safer vehicles. IPWEA (NSW) supports the NSW Government's efforts to address motorcycle safety through a Safe Systems approach. However, better communication and reporting on progress of implementation of the Strategy would help raise awareness of the work being done to improve rider safety.

Protective clothing

Lack of protective clothing – that is jackets, boots, gloves and body armour - is known to be a major contributor to motorcyclist casualties (de Rome et al. 2011). Scooter riders are especially vulnerable and there is evidence to show that they are less likely than motorcyclists to wear proper protective clothing. Sweeney Research found in 2010 that 97% of motorcyclists surveyed own a motorcycle jacket and gloves. Ownership of boots and pants is marginally lower at 90% (Hennessy C, Govan C & Lowery R 2010, p. 61). However, frequency of wearing protective clothing is a concern as only 77% of riders wearing a jacket ‘all of the time’.

Recommendation

IPWEA (NSW) recommends:

- *development of a public education, subsidies (including discounts on insurance) and / or other incentives to increase usage of protective clothing among motorcyclists especially groups that have lower rate of use including scooter riders.*
- *an Australian Standard for motorcycle protective gear be created along with a Star Rating System.*
- *harmonising the regulation surrounding the supply and use of motorcycle helmets across all states and territories, and reducing ambiguity in this area (Standards Australia 2015).*

Conspicuity

The use of bright coloured clothing, white helmets, fluoro vests and headlights have all been identified as measures that could improve rider visibility. From 1 October 2014, Learner riders in Victoria must wear a high visibility vest or jacket whilst riding and ride with headlight in at all times. Introduced as part of the new Graduated Licensing Scheme (GLS), these changes are aimed at reducing crash risks for Learner riders. The decision to make wearing a hi-visibility mandatory is in keeping with occupational health and safety requirements for road construction / maintenance and emergency service personnel who must wear hi-visibility vests or clothing when working in and around traffic (Worksafe Victoria 2011).

Interestingly, the decision to make wearing hi-visibility clothing / vests mandatory came after the *2012 Victorian Inquiry into Motorcycle Safety* was unable to support the mandatory use of hi-visibility clothing for motorcyclists (Parliament of Victoria 2012 p. 334). The Committee could not support the proposal as it could not identify one single approach that would work in all circumstances including city and country riding. However, the Committee did find that encouraging the use of hi-visibility clothing through education may be beneficial. It also recommended monitoring the outcomes of a hi-visibility clothing measure which came into effect in France on 1 January 2013.

The mandatory use of headlights or Dedicated Running Lights (DRLs) was not considered as part of the Victorian or Queensland Inquiries. However, the decision to make the use of headlight mandatory in Victoria is backed by studies and field trials that support the use of headlights at all time as a means of improving conspicuity for novice drivers (Baldock and Hutchinson 2010; Paine 2003). Moreover Paine, in his review of daytime running lights conducted on behalf the NRMA and RACV in 2003, argues that combination of cars and motorcycles with dedicated DRLs could lead to exceptional motorcycle crash reductions (Paine 2003, p. 33). Paine also argues that DRLs would have the greatest benefit with more severe accidents, including head-on and intersection crashes where many motorcycle crashes occur (Paine 2003, p. 31).

Recommendation

IPWEA (NSW) does not support the mandatory use of daytime headlights and hi-visibility clothing at this time due to a lack of supporting evidence regarding their effectiveness in reducing crashes involving Learner motorcycle riders. However, we do recommend monitoring the outcomes of the Victorian and French measures before re-examining the matter in 12 months to 2 years.

Vehicle design

Advancements in motorcycle design such as the inclusion of Anti-Lock Braking (ABS) is an area that could lead to significant decreases in motorcyclist crash rates and casualties. Both the NRMA (2010) and RACV (2011) are supportive of encouraging the uptake of ABS on motorcycles. Anecdotal evidence submitted by member councils and motorcyclists also suggests that an increased uptake of ABS would be an effective preventative safety measure. It would be of benefit to policy makers and practitioners to establish a baseline of the number of motorcycles in NSW fitted with ABS and traction control. The Sweeney Research study conducted in 2010 found that ABS is relatively low as only 1-in-10 motorcyclists (12%) reported owning a bike with ABS (Hennessy C, Govan C & Lowery R 2010, p. 57) albeit from a sample study of 1,755 motorcyclists.

The Sweeney Research study also asked riders about their general attitudes towards safety features at time of purchase. Only 67% of motorcyclists surveyed said that safety features were important to them at the time they purchased their bike. Safety features were more important to female than males (81% and 66% respectively) and older riders aged 40+ than those aged under 40 (73% and 61% respectively). Although this research was conducted in Victoria some 5 years ago, it would seem there is a need for government, industry and practitioners and riders to work together to increase awareness of the role that bike safety features play in preventing crashes. It is also important to recognise how this technology applies to different categories of motorcycles such as off-road and adventure bikes.

Recommendation

IPWEA (NSW) recommends the development of a new public education and / or use of incentives to increase the number of motorcycles being purchased with ABS and other primary safety features. IPWEA (NSW) would only be supportive of mandating ABS technology if there is research to support its effectiveness and provides a better understanding of how it would apply to different categories of motorcycles.

Road design and improvements

In NSW, local councils are “Road Authorities” under the Roads Act, 1993. Local government has responsibility for 85 percent of the road network and this portion of the road network accounts for around 60 percent of road accidents. The estimated investment to replace the NSW local transport infrastructure is \$65.7 billion based on the values reported in financial statements of all 152 councils at 30th June 2014. The assets are reported as being consumed at an estimated \$907 million per annum.

The *2014 Road Asset Benchmarking Report* shows that NSW councils are responsible for managing 163,850 km of regional and local roads and 10,067 bridges with a replacement cost of \$65.7 billion. The life cycle cost of the road and bridge network is estimated at \$1.53 billion per annum for 2013/14. Expenditure of \$1.08 billion was 71% of the life cycle cost. Current service levels and expenditure levels are not sustainable.

	Road Length in km		
	Sealed	Unsealed	Total
Regional Roads	15,117	3,201	18,317
Local Roads	65,885	79,647	145,533
Total	81,002	82,848	163,850

Table 3. Regional & local road lengths for responding councils

The net result of this funding shortfall is that the condition of the local and regional road networks is deteriorating, which is producing a corresponding deterioration in the safety of the network for road users, including motorcyclists. As one experienced motorcycle trainer recently explained to IPWEA (NSW) staff:

“Motorcycle riders are like the canaries down the coalmine when it comes to identifying a decline in road safety across the road network”,

Recommendation

While recognising that both the Australian and NSW governments have increased spending on roads in NSW, IPWEA (NSW) calls for a sustainable funding model that addresses the growing infrastructure backlog and infrastructure maintenance going forward.

d. Strategies of other jurisdictions to improve motorcycle safety

Motorcycle safety has been identified as a growing concern in a number of other jurisdictions. Parliamentary Inquiries were held in both Victoria and Queensland in 2012 and it was also the focus of the 2010 Staysafe *Inquiry into Vulnerable Road Users in NSW*. Based upon our review of the relevant literature, other jurisdictions appear to be focusing on the following areas to improve motorcycle safety: rider training and experience, conspicuity, vehicle design, public education, licencing and testing, incentives and levies, working collaboratively with stakeholders, road design and new technologies such as Intelligent Transport Systems (ITS).

e. Licensing and rider training

In 2009, the RMS introduced a Graduated Licensing Scheme (GLS) for new riders in NSW requiring new riders to pass through 3 licencing stages before obtaining a full rider licence. Variations of GLS are also in place across all other Australian states including most recently Victoria in 2014. The introduction of such schemes is based on extensive international research demonstrating that they play an important part in reducing the incidence of crashes involving inexperienced drivers.

While there is strong support for GLS schemes among governments and road safety practitioners, it should be noted that our most inexperienced riders – our Learner motorcycle riders - continue to be over-represented in crashes. In 2013, Learner car drivers accounted for only 1% of total crashes involving a car while Learner motorcycle riders accounted for 15% of total crashes involving a motorcycle (TfNSW 2013). As riders become more experienced and graduate to a Provisional licence their rate of involvement in crashes improves and to be on par with other Learner types.

Of additional concern, NSW crash data for 2013 shows that 88% of crashes involving a Learner motorcycle rider was a fatal or injury crash. In comparison, only 34% of all crashes involving a Learner car driver was a fatal or injury crash. It is therefore imperative that policy makers do all they can to address learner rider safety. Table 4 below presents the proportion of car drivers and light truck drivers involved in all crashes compared to motorcyclists by licence status.

Licence status	Car driver % of total	Light truck driver % of total	Motorcyclist % of total
Learner	1	0	15
Provisional	18	13	14
Standard	68	74	50
Unlicensed	2	3	7
Unknown	10	10	13
Total	100	100	100

Table 4. Percentage of motor vehicle controllers involved in all crashes by road user class in NSW, 2013

As part of the NSW GLS requirements, it is compulsory for riders to attend a rider training course. The first part, *Pre learning training*, consists of two off road sessions of 3 hours each. It is a competency based course meaning students receive a pass or fail. Riders also complete a Driver knowledge Test (DKT) and eyesight test before they are awarded a Learner rider licence (Class R). There are restrictions on the type of motorcycles that Learners can ride, speeds, blood alcohol limit and other restrictions (TfNSW 2013a, p 13).

IPWEA (NSW) has received feedback from council members and experienced motorcycle riders suggesting that Pre learning training courses play a valuable role in helping Learner riders gain core riding skills including balance, coordination, starting, accelerating, turning and braking. A review of literature on young drivers has also led us to believe that Learner riders would benefit from additional hours of supervised training. Learner car drivers, in comparison, are required to complete 120 hours of supervised driving (including 20 hours of night driving) and hold their Learner licence for 12 months before they can sit a driving test to obtain a Provisional licence.

Learning to riding a motorcycle is a more difficult task than learning to drive a car and we should therefore encourage motorcyclists to learn the necessary skills to ride safely. These skills can be gained through courses delivered by an accredited training centre. The current requirement for 6 hours Pre Learning training is inadequate in comparison to learner driver requirements. The RACV has recommended 25 hours of supervised on-road riding be completed prior to graduating (RACV 2011, p. 4). IPWEA (NSW) would also like to see more facilities built or set aside for Learner riders to acquire experience in an off road environment.

IPWEA (NSW) is also concerned that some Learner riders in regional areas do not complete the Pre Learning training due to a lack of access training courses. In saying that, we recognise that offering training in some regional areas may not be commercially viable. IPWEA (NSW) also understands that many Learner riders in regional areas may have significant off road experience on a motorcycle from a young age. Nevertheless, IPWEA (NSW) would like to see GLS conditions apply to

all new riders regardless of where they live. The safety of Learner riders in regional areas is important and we recommend investigating opportunities to expand learner courses to more regional areas.

Returning motorcycle riders in NSW is also an area of concern. Returning riders are riders who obtained their riders licence at a young age (usually in their 20s) before taking a break and then start riding again in their 40s and 50s. Some of these riders have maintained their motorcycle licence for 10-30 years before returning after changes in family circumstances. It is highly recommended that these riders complete a refresher or safety riding course to rebuild their skills (South Australia 2015). Sadly, this group of riders (rider aged 40+) accounted for 56% of rider fatalities in 2013. The issue has previously been identified within the NSW Government's *Motorcycle Safety Strategy* as area requiring further investigation.

Recommendation

IPWEA (NSW) recommends:

- *increasing the number of hours of supervised training required to be completed by learner riders before completing Pre-provisional training and taking a provisional stage (P1) rider licence test.*
- *that GLS conditions should apply to all new riders regardless of where they live. We recognise that this may adversely impact people living in regional areas and recommend that learner courses be expanded to more regional areas where practicable.*
- *more opportunities for leaner motorcycle riders to acquire experience in an off road environment.*
- *the development of a public education campaign or increased emphasis through existing communication channels focusing on encouraging returning riders to complete a refresher or safety riding course such as we see in other Australian states and territories.*

As previously mentioned, IPWEA (NSW) does not support the mandatory use of headlights or hi-visibility clothing at this time due to a lack of supporting evidence regarding their effectiveness in reducing crashes involving learner motorcycle riders.

f. Any other related matters

In 2014, motorcycle lane filtering laws were passed in NSW. The laws were passed following an Australian first trial where motorcyclists were allowed to lane filter between stationary vehicles at intersections from 1 March to 30 April 2013. The trial took part in the Sydney CBD and was evaluated using a number of methods including video cameras and survey. A final report prepared by TfNSW following the trial found no crashes were reported during the trial period although one near miss was recorded (TfNSW 2014 p. 8). As NSW is the first state or territory in Australia to pass such laws, there is considerable interest from other jurisdictions and other stakeholders. IPWEA (NSW) supports ongoing monitoring of motorcyclist and driver behaviour to evaluate the long term impact on the safety of all road users.

Conclusion

The NSW Roads and Transport Directorate is a recognised leader in the field of traffic, transport and road safety. We believe there is an opportunity to make some relatively simple changes that could lead to a reduction in motorcycles crashes and road trauma in NSW.

Summary of recommendations:

- 1. IPWEA (NSW) recommends improving the collection and reporting of crash data in NSW and across all states and territories. A better understanding of the extent of crash related injuries in particular would assist local councils and communities to determine exactly where the burden of injury is occurring and how much it is costing. This would also greatly assist councils to prioritise roads upgrades and develop other strategies - such as behavioural programs - to prevent or lessen the effects of motorcycle crashes.*
- 2. IPWEA (NSW) recommends the establishment of a national database on injury numbers for all vulnerable road users.*
- 3. IPWEA (NSW) recommends funding the Local Government Road Safety Program (LGRSP) beyond the current 3 year cycle so that RSOs can continue working with local communities to address behavioural road safety factors with reference to motorcycle safety.*
- 4. IPWEA (NSW) recommends the development of public education campaigns aimed at improving the attitudes of riders and drivers towards each other.*
- 5. IPWEA (NSW) recommends:*
 - the development of a public education, subsidies (including discounts on insurance) and / or other incentives to increase usage of protective clothing among motorcyclists especially groups that have lower rate of use including scooter riders.*
 - an Australian Standard for motorcycle protective gear be created along with a Star Rating System.*
 - harmonising the regulation surrounding the supply and use of motorcycle helmets across all states and territories, and reducing ambiguity in this area (Standards Australia 2015).*
- 6. IPWEA (NSW) does not support the mandatory use of daytime headlights and hi-visibility clothing at this time due to a lack of supporting evidence regarding their effectiveness in reducing crashes involving Learner motorcycle riders. However, we do recommend monitoring the outcomes of the Victorian and French measures before re-examining the matter in 12 months to 2 years.*

7. *IPWEA (NSW) recommends the development of a new public education and / or use of incentives to increase the number of motorcycles being purchased with ABS and other primary safety features. IPWEA (NSW) would only be supportive of mandating ABS technology if there is research to support its effectiveness and provides a better understanding of how it would apply to different categories of motorcycles.*
8. *While recognising that both the Australian and NSW governments have increased spending on roads in NSW, IPWEA (NSW) calls for a sustainable funding model that addresses the growing infrastructure backlog and infrastructure maintenance going forward.*
9. *IPWEA (NSW) recommends:*
 - *increasing the number of hours of supervised training required to be completed by learner riders before completing Pre-provisional training and taking a provisional stage (P1) rider licence test.*
 - *that GLS conditions should apply to all new riders regardless of where they live. We recognise that this may adversely impact people living in regional areas and recommend that learner courses be expanded to more regional areas where practicable.*
 - *more opportunities for learner motorcycle riders to acquire experience in an off road environment.*
 - *the development of a public education campaign or increased emphasis through existing communication channels focusing on encouraging returning riders to complete a refresher or safety riding course such as we see in other Australian states and territories.*

We welcome the opportunity to address the inquiry to provide further detail on the issues raised within this submission.

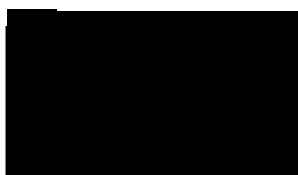
Contact

Please do not hesitate to contact Mick Savage on tel: [REDACTED] or email [REDACTED] in relation to this submission.

Yours faithfully,



Mr Garry Hemsworth
Director IPWEA NSW Board



Mr Mick Savage
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