

**Submission**

**No 21**

## **INQUIRY INTO SCHOOL ZONE SAFETY**

**Organisation:** Commission for Children and Young People

**Name:** Ms Vanessa Whittington

**Date Received:** 5/10/2011



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

Dear Chair,

I write to make a submission to the Joint Standing Committee on Road Safety's current Inquiry into School Zone Safety.

The Commission for Children and Young People (The Commission), was established in 1999 as an independent statutory authority within Government under the *Commission for Children and Young People Act 1998*. The Commission has a particular interest in the issue of school zone safety as the Commission's mandate, established in its legislation, is to promote the safety and wellbeing of children and young people in NSW.

The attached submission makes a number of key recommendations, including that the NSW Government retain 40km/h speed zones around schools, given their effectiveness in improving pedestrian safety. In the interests of child safety, it is argued that these speed zones should be extended to early childhood education and care facilities. Consideration of extension to other venues that provide sport and recreation to large groups of children and young people is also recommended. The submission also calls on the NSW Government to give consideration to making flashing light warning systems available in all school zones and developing improved road safety educational programs and resources for parents.

The Commission notes that children and young people have previously given evidence to the NSW Parliament directly in the case of the Parliamentary Joint Committee on Children and Young People's *Inquiry into the needs of children aged 9-14 years*. The Commission encourages the Committee to consult directly with children as part of this Inquiry.

For further communications on this matter, the contact person is Mr Gregor Macfie, Director Policy and Research on (02) 9286 7243 or at [Gregor.Macfie@kids.nsw.gov.au](mailto:Gregor.Macfie@kids.nsw.gov.au).

Yours sincerely

A handwritten signature in cursive script, appearing to read 'Megan Mitchell'.

Megan Mitchell  
**Commissioner**  
**5 October 2011**

# Commission for Children and Young People

## Submission to Joint Standing Committee on Road Safety's Inquiry into School Zone Safety

### Role and Work of the Commission

The NSW Government supports the well-being of children and young people through the work of the NSW Commission for Children and Young People (the Commission). The Commission was established in 1999 as an independent statutory authority within Government under the *Commission for Children and Young People Act 1998*. The Commission works with NSW Government and non-government agencies providing policy advice, undertaking research, supporting the development of child-safe organisations and monitoring the NSW Working with Children Check. The Commission reports to a Parliamentary Joint Committee. Further information about the work of the Commission can be found at: [www.kids.nsw.gov.au](http://www.kids.nsw.gov.au).

### Summary of Commission Recommendations

**Recommendation 1:** *That the NSW Government retain 40 km/h speed zones around schools.*

**Recommendation 2:** *That the NSW Government extend 40 km/h speed zones to all early childhood education and care facilities.*

**Recommendation 3:** *That the NSW Government give consideration to extending 40km/h speed zones to venues providing weekend sport and other recreational activities where large groups of children and young people spend their time.*

**Recommendation 4:** *That the recommendations of the Auditor-General's report, Performance Audit, Improving Road Safety: School Zones, be implemented by the NSW Government (full list of recommendations at **Attachment A**).*

**Recommendation 5:** *That consideration be given to making flashing light warning systems available in all NSW school zones.*

**Recommendation 6:** *That consideration be given to making speed cameras more widely available in school zones.*

**Recommendation 7:** *That the NSW police and councils responsible for enforcement of parking restrictions in school zones undertake increased compliance activities to address parking and drop-off practices in school zones that endanger children.*

**Recommendation 8:** *That the RTA take a proactive approach to promoting to schools the availability of funding for school crossing supervisors, particularly in*

*school zones where child pedestrians are more at risk, as indicated by numbers of casualties and incidence of speeding, for example.*

**Recommendation 9:** *That in consulting on land use planning for school developments, councils involve children and families in the development and planning process.*

**Recommendation 10:** *That the RTA develop an educational program on road safety that specifically targets parents and amend existing resources targeting parents to include content that explains how the limitations that arise from a child's developmental stage can put them at risk in traffic. This educational program should be subject to evaluation.*

**Recommendation 11:** *That the Staysafe Committee take evidence directly from children and young people as part of its Inquiry process.*

## **Detailed response to Terms of Reference (TOR)**

### ***a) Effectiveness of school zones in reducing pedestrian casualties during school zone times***

Research by the RTA, referred to in the NSW Auditor-General's 2010 Report, *Performance Audit, Improving Road Safety: School Zones*, indicates that the introduction of a 40km/h speed limit on all roads with direct access to schools by the NSW Government in early 2003<sup>1</sup> has been very effective in reducing pedestrian casualties, particularly among children. The Auditor-General recommended that "the RTA should retain existing school zone facilities" (NSW Audit Office: 2010: 4).

The RTA completed a detailed analysis of crash and casualty<sup>2</sup> trends relevant to the introduction of the 40km/h school zone measure. The analysis was based on spatial data from a sample of 820 school zones in South West and Sydney RTA Regions, representing approximately one quarter of NSW school zones, and compared the pre-school zone period (1998 to 2000) to the post school zone period (2004 to 2008).

The analysis revealed a 45% decrease in average annual pedestrian casualties in school zones during school zone times and a 46% reduction for pedestrians aged 5 to 16 years during these times between the pre and post school zone periods. This was significantly greater than the total reduction in pedestrian casualties over this period of 29% and the 41% reduction for pedestrians aged 5-16 years. Pedestrian casualties, particularly the 5 to 16 year old age group, decreased in school zones at a far greater rate than at other locations. The RTA notes that for pedestrians aged 5 to 16 years, this decrease was present for both school zone times and school days during non-school zone times. Graham and Sparkes, who conducted the RTA

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<sup>1</sup> *Reduced speed zones around some schools were first introduced in NSW in 1992.*

<sup>2</sup> *The term casualty refers to both fatalities and injuries.*

analysis, concluded that this “result suggests that the benefits of school zones (and the lowering of speeds) applied to all pedestrians and not just school aged children” (Graham & Sparkes: 2010: 6).

It is also important to note that a 40 km/ h speed limit reduces the severity of injury. The Auditor General’s report indicates that the risk of fatal injury for pedestrians struck by a vehicle at 50 km/h is more than twice as high as the risk at 40 km/h, and more than five times higher than the risk at 30 km/h. A pedestrian struck by a vehicle travelling at 60 km/h is almost certain to be killed.

Given the success of 40 km/h school zones in preventing injury and death not just among children but all pedestrians, and the particular vulnerability of children as road users, the Commission considers it extremely important that 40km/h speed zones be retained near all NSW schools. This is important for both primary and secondary schools. While young children are particularly vulnerable due to their small size and more limited capacity to deal with traffic, most child accidents and injuries occur among the older 10-14 yr age group (Elliott: *Child Pedestrian Safety in NSW*: <http://www.maa.nsw.gov.au/default.aspx?MenuID=381>, accessed 23/09/11).

A further factor in favour of this measure is that it is broadly supported by the community. The Auditor-General’s report refers to surveys conducted by the NRMA in 2002 and 2003, which indicated that “support of 40 km/h school zone limits was almost universal, with 83 per cent [of those surveyed] expressing strong support” (NSW Audit Office: 2010: 21).

In addition to schools, the Commission is of the view that the 40 km/ h speed zone should be extended to all early childhood education and care facilities. The Commission would also support consideration of extending this measure to venues providing weekend sport and other recreational activities where large groups of children and young people spend their time.

The Commission’s Child-safe Child-friendly program assists organisations to reduce risks to children in multiple settings and can be found at: <http://kids.nsw.gov.au/kids/working/safefriendly.cfm>.

**Recommendation 1:** *That the NSW Government retain 40 km/h speed zones around schools.*

**Recommendation 2:** *That the NSW Government extend 40 km/h speed zones to all early childhood education and care facilities.*

**Recommendation 3:** *That the NSW Government give consideration to extending 40km/h speed zones to venues providing weekend sport and other recreational activities where large groups of children and young people spend their time.*

### ***b) Major contributing factors to pedestrian casualties in school zones***

The Auditor-General's report estimates that the number of school zone casualties, (fatalities and injuries) is small, ranging from 6 to 29 each year in the sample of school zones reviewed by the RTA (approximately 25% of all school zones). This is equivalent to an estimated 60 annually in all NSW school zones. By comparison, there were on average 2,000 school age casualties each year on the NSW road system (NSW Audit Office: 2010: 2). Of the 279 casualties aged 5-16 years occurring in the selected school zones during school zone times over the ten year study period, 171 or 61% of all casualties in this age range were pedestrians (Graham & Sparkes: 2010: 5). In the last decade to 2010, two child pedestrian fatalities in school zones have been recorded. Another occurred where a school zone was subsequently installed.

In regard to the analysis conducted by the RTA, unsafe parking around schools was a factor in one of the cases involving the death of a child. Speed related crashes were quite rare, representing around five per cent of all crashes, and only one per cent of all crashes involving a school age pedestrian were speed related. This result may indicate the effectiveness of 40km/h zones in reducing driver speeds and thereby reducing speed related crashes involving child pedestrians. Other types of crashes identified in this research were congestion/ sudden slowing down type crashes.

The Auditor-General's report also refers to the results of research on child pedestrian injury other than that conducted by the RTA, which reveals that the most common cause of pedestrian trauma in three to nine year olds is not seeing, or misjudging, a gap in traffic. This report refers to European research which indicates that a high proportion of child pedestrian crashes involved visual obstacles, usually parked cars, and that near side collisions where a child emerges from in front of a parked vehicle accounted for almost a quarter of fatal collisions. Child pedestrian deaths often occurred as the child darted out or attempted to cross the road, emerging from behind parked cars, and stationary buses.

The Auditor-General's report makes a number of recommendations to address child pedestrian casualties in school zones, which identify a range of contributing factors, (see Attachment A for full list). Recommendations aim to address continuing driver speeding in school zones, poor parking practices by those dropping off children and a lack of council policing of illegal and unsafe drop-off parking. Other recommendations suggest that flashing light warning systems be more widely available, particularly in schools with non-standard operating times and that land use planning decisions ensure that new schools are built on roads where the risk of conflict with motor vehicles is minimal.

### ***c) Age as a factor in pedestrian crash risk and major contributing factors for casualties by age cohort in school zones***

Age is clearly a factor in the type and degree of risk of injury from a motor vehicle collision experienced by child pedestrians. In a 2002 article on *Child Pedestrian Safety in NSW*, the RTA's Manager of School and Youth Programs provides a breakdown of child pedestrian casualties by age between 1996 and 2000. This data

shows that 5-9 year olds accounted for 1099 injuries, 10-14 year olds 1432 injuries and 15-18 year olds 1358 injuries. The larger number of injuries experienced by 10-14 year olds is described as consistent with other road-related injuries such as bicycle and bus related accidents. In keeping with other injuries occurring to children, males are over-represented by a factor of at least 2:1, (Elliott: *Child Pedestrian Safety in NSW*: <http://www.maa.nsw.gov.au/default.aspx?MenuID=381>, accessed 23/09/11).

A report by the Motor Accidents Authority on *Child Development and Road Safety*, explains the impact that the child's stage of development has on the capacity to negotiate traffic safely. Because of their immature neural development and lack of acuity in both sight and hearing, infants and toddlers cannot make any safe judgements about vehicles or the road and parents/ carers need to assume full responsibility for children's safety. The greater mobility of infants in their second year and increasing curiosity about their environment can place them at greater risk of injury. Children at the early childhood stage, (2-5 yrs), are also at great risk as pedestrians as they are becoming adventurous but have not yet fully developed depth perception, scanning ability or the capacity to judge speed, (David et al. 1986, cited in Di Pietro: 2004: 15). At age four or five years many children have little or no understanding of what constitutes a safe place to cross the road, are poor at making judgements about when oncoming traffic makes it safe or dangerous to cross, and are unable to attend strategically to, and co-ordinate information about, traffic approaching from different directions (UK DFT Report No 06, cited in Di Pietro: 2004: 15).

Children in the 5-7 age group are said to possess a global understanding of danger but to have little idea what to look for and what to ignore at the roadside. They have a tendency to be swayed by whatever is going on, possibly resulting in darting out or other impulsive behaviours, (Tolmie, et al, 1998; Lewis et al 1998, Thomson et al 1998, cited in Di Pietro: 2004: 21). Children in the 5-12 age group may find it hard to stop a movement which has been started and to detect the exact location of traffic sounds. Their "intellectual" understanding of traffic and traffic risk may run ahead of their perceptive, information-processing and psychomotor abilities, (OECD, 2004, cited in Di Pietro: 2004: 21).

In regard to adolescents aged 12-16 yrs, the report by the Motor Accidents Authority argues that attitudinal and other social psychological factors play a greater role in risk of pedestrian injury than physical or cognitive limitations. Adolescents may over estimate their competence and may be strongly influenced by what they perceive the attitudes and values of their peers to be, and this can lead to risk taking behaviour around traffic.

This evidence is supported by current thinking on the middle years of childhood, explored in the Commission's 2011 seminar series on the middle years, examining the physical, social and emotional development of children in the 9-14 year age range. Further information about this seminar series is available on the Commission's website at <http://kids.nsw.gov.au/kids/ourwork/middleyears.cfm>.

The report by Di Pietro notes that children under the age of 10 cannot safely cross a road alone. This fact needs to be reflected in drop-off practices in school zones. The

danger that parked vehicles pose to small children should also be reflected in drop off and parking practices, and suggests that no parking provisions (except in designated bays) in school zones should be maintained.

***d) Deployment of alternative facilities to reduce reliance on school zones, such as grade separation, traffic lights and fencing, and***

***e) Appropriateness of a single approach school zone regime as opposed to modifying zones based on existing infrastructure and other current safety measures employed around schools.***

The Commission argues that the three tiered approach of engineering, education and enforcement, typically used in public health, is the approach that should be adopted in responding to school safety issues.

In regard to TOR (d), the Commission does not consider that alternative measures such as grade separation, traffic lights and fencing should be deployed as a substitute for 40 km/h speed zones, but that these may be usefully employed in conjunction with this requirement, particularly where schools are sited on busy roads and parents persist in unsafe drop-off practices. A range of other measures should also be used as appropriate including no-stopping and no-parking zones around school entrance and exit points, allocated drop-off and pick-up bays for parents, physical design of approaches to pedestrian crossings to maximise visibility and traffic calming devices.

In regard to TOR (e), which looks to the appropriateness of a 'single approach school zone regime', the Commission considers that a uniform statewide approach to speed in school zones should be maintained as it has been shown to be effective and has the advantage of ensuring statewide consistency. This means that no child's safety will be compromised by not having access to this measure.

### **Flashing light warning systems**

As stated above, it is likely that a number of other measures, such as engineering solutions specific to the site and education programs, both targeting students and parents, will be needed to address school zone safety. One of the environmental measures that should be considered is providing access to flashing light warning signs in all school zones. An evaluation of the pilot introduction of flashing light warning signs conducted on behalf of the RTA revealed that flashing lights placed on regulatory 40 km/h school speed zone signs were effective in reducing vehicle speeds, (Roper et al: 2006: vii).

In 2010 there were 3154 schools sites across NSW, however the RTA indicates that as of June 2011, only 688 were protected with a flashing light warning system. In addition, of the 23 NSW schools with non-standard operating hours, the Auditor-General's report indicates that only 5 were fitted with flashing lights. It was a government election commitment to fast-track the installation of school zone alert systems so that the total number of school zone flashing lights in NSW increases to 1,000 by 2015, with priority given to schools where children are at most risk. While



this initiative is welcome, the Commission believes every school in NSW should have a flashing light warning system in place so that all children enjoy the same level of protection. The Commission supports the Auditor-General's recommendation to improve the visibility of school zones by increasing the use of flashing light warning systems and fitting flashing lights at all school zones with non-standard operating times.

The Commission notes however that the evaluation of the flashing light warning system referred to above revealed technical difficulties with their operation which meant that they were not functioning effectively at all times. Eighty faults were reported over an 18 month period, which represents about 2 faults per site for the study period. The report authors note that this rate of failure is considered to be high (Roper et al: 2006: vi). It is important that these technical difficulties are addressed and rectified due to the clear risk posed to the safety of children on roads during 'fault' periods.

### **Speed cameras and signage**

One of the key findings of the Auditor-General's report was that motorists continue to speed in 40 km/h school zones. The report identifies two main reasons why this is likely to occur. The first is that drivers are unaware they are in a school zone and of the speed limit that applies due to factors such as poor signage. The second is that some drivers believe they can speed with impunity because enforcement is ineffective or non-existent. Enforcement relies almost entirely on fixed speed cameras, however only 44 school zones have these in place (NSW Audit Office: 2010: 3).

Specific criteria must be met for a fixed speed camera to be installed in a school zone, including a minimum number of crashes, including at least one crash in school zone times, a minimum vehicle volume, potential for conflict between pedestrians and vehicles within the school zone during school zone times and site suitability.

The Auditor-General's report notes that the initial trial of fixed speed cameras across NSW in 2005 showed a statistically significant reduction in mean speed and in the percentage of vehicles exceeding the speed limit where fixed cameras were installed. It also showed that the cameras contributed to statistically significant reductions in crashes, including fatal crashes (NSW Audit Office: 2010: 16). Given the effectiveness of speed cameras, it is suggested that they be made more widely available in school zones. This may necessitate relaxing the criteria that must be met before a fixed speed camera can be installed.

The Auditor-General also recommended that the RTA should ensure that all school zone signs are correctly installed, of appropriate visibility and in serviceable condition. The Commission supports this recommendation.

## **School Zone parking enforcement & RTA's 'drop-off pick-up' initiative**

The Auditor-General's report also found that unsafe parking contributes to the hazards around schools and that most councils undertake little or no enforcement of parking restrictions. Of the 164 NSW Councils in existence in 2008-09, 79 did no school zone parking enforcement in 2008-09, many of which were in rural areas. Police undertake some enforcement in school zones, issuing about 8% of all parking offence notices in school zones in 2008-09.

The RTA has developed a drop off and pick up initiative for schools, comprising promotional material and 'drop off and pick up' signs for No Parking zones outside schools. However this initiative is adopted at the discretion of individual schools.

As unsafe parking is associated with child pedestrian casualties, it is suggested that improved enforcement of parking restrictions by responsible authorities occur, and that schools be encouraged to utilise the RTA program where problems are identified.

### **Other safety measures**

- School crossing supervisors employed by the RTA are available at approximately 700 sites, which represents only 24% of NSW schools. It is understood that schools must meet specific criteria under the scheme to obtain the services of a school crossing supervisor, and that it is up to the school to apply. The Commission suggests that the RTA take a proactive approach to promoting this program by identifying the school zones where school crossing supervisors are needed, and encouraging schools in these zones to apply for funding for this purpose.
- Dragon's teeth (triangular road markings), which aim to increase visibility of school zones and encourage motorists to slow down were to have been installed at all schools in NSW by December 2010.
- The Auditor-General has recommended that the RTA should make school zone locations available to GPS users.
- The Auditor-General has also recommended that "all organisations, both Government and non-Government, should cooperate to ensure that:
  - new schools are built on roads where the risk of conflict with motor vehicles is minimal.
  - school operating hours are standardised wherever possible" (Auditor-General: 2010: 4).

The RTA indicated in response that it should be consulted by councils during the land use planning process on all new school development proposals.

- The Commission is currently undertaking work to support the development of child friendly built environments. A key aspect of this project is increasing the participation of children and young people in the planning and design of their

communities. The Commission has developed *built4kids*, which includes a set of child friendly indicators, one of which is focused on making communities safer for children. This resource is available on the Commission's website at <http://kids.nsw.gov.au/kids/ourwork/builtenvironment.cfm>.

**Recommendation 4:** *That the recommendations of the Auditor-General's report, Performance Audit, Improving Road Safety: School Zones, be implemented by the NSW Government (full list of recommendations at **Attachment A**).*

**Recommendation 5:** *That consideration be given to making flashing light warning systems available in all NSW school zones.*

**Recommendation 6:** *That consideration be given to making speed cameras more widely available in school zones.*

**Recommendation 7:** *That the NSW police and councils responsible for enforcement of parking restrictions in school zones undertake increased compliance activities to address parking and drop-off practices in school zones that endanger children.*

**Recommendation 8:** *That the RTA take a proactive approach to promoting to schools the availability of funding for school crossing supervisors, particularly in school zones where child pedestrians are more at risk, as indicated by numbers of casualties and incidence of speeding, for example.*

**Recommendation 9:** *That in consulting on land use planning for school developments, councils involve children and families in the development and planning process.*

**f) The availability and effectiveness of current road safety education programs in NSW schools**

Material currently available on the RTA and Motor Accident Authority websites indicates that the RTA's road safety education program operates in all NSW schools as part of a compulsory curriculum. The program provides educational resources and professional development to teachers and child-care workers throughout NSW.

The RTA employs Road Safety Education Consultants to provide road safety support and resources to NSW schools and professional development to teachers on road safety matters. Parental education is also addressed as part of this program with take-home notes and parent-involved activities.

The Auditor-General notes that RTA has undertaken research which found that school-leavers have a strong recall of road safety messages learnt at school. However, the Auditor-General was unaware of any evaluation of whether the program has successfully modified the behaviour of children and their parents or carers around schools (NSW Audit Office: 2010: 18).

It is understood that the RTA's road safety program engages parents to a small degree through strategies such as take-home notes for parents. The Commission believes there is a need for the RTA to develop a road safety education program comprised of a number of educational modules that specifically targets parents. The program should convey information such as the dangers posed to children by unsafe parking and speeding in school zones and the way in which a child's developmental stage can impact on their capacity to negotiate traffic.

Such a program would go beyond the series of resources the RTA has developed for parents on road safety issues around schools available on the RTA website. These resources do not explain the way in which aspects of child development can limit the capacity of children and young people to deal with traffic and it is important that they do so. The extent to which these resources are promoted and available to parents, including through schools, is unclear.

**Recommendation 10:** *That the RTA develop an educational program on road safety that specifically targets parents and amend existing resources targeting parents to include content that explains how the limitations that arise from a child's developmental stage can put them at risk in traffic. This educational program should be subject to evaluation.*

#### **g) Any other related matters**

#### **Whole- of- government and community approach**

For school zone safety measures to be most effective, a multi-agency approach is required across government. Input from the RTA into this approach would be required to inform the physical design of roads surrounding local schools and other safety measures, from local councils to monitor and enforce parking restrictions and from Education and Communities to support supervision of children arriving at and leaving school. To this end, a formal regular mechanism or taskforce to drive such activity could be established.

At a community level, education and awareness for children, parents and other members of the community is critical to ensure that measures that address the hazards in the physical environment are complemented with strategies to address behavioural issues. As discussed above, it is understood that the RTA has developed a program to ensure road safety education for children occurs as part of the compulsory school curriculum. The development of a specific road safety education program targeting parents is proposed above.

#### **Participation of children and young people**

The Commission's commitment to effective participation is enshrined in the *Children and Young People Act 1998* (the Act). Section 11 (a) requires the Commission to promote the participation of children in decisions that affect their lives and to encourage government and non-government agencies to seek the participation of children, appropriate to their age and maturity.

The Commission recommends that the Staysafe Committee take evidence directly from children and young people as part of its Inquiry process and would be willing to

assist the Committee in this regard. Children and young people have critical and unique insights into issues. They also have the potential and capacity to offer creative solutions to policy problems and their involvement can enrich decision-making processes and outcomes.

In matters that affect children, without genuinely seeking their views and seeking to understand their lives, policy makers can invariably make less than optimal decisions, which can have significant and negative consequences for children. The Commission's TAKING PARTicipation Seriously supports organisations to seek the views of children and is available at:

<http://kids.nsw.gov.au/kids/resources/participationkit.cfm>. The Commission would also be happy to provide advice or assistance in this area.

Precedence for taking evidence from children has been set by the Parliamentary Joint Committee on Children and Young People. As part of its Inquiry into the middle years of childhood in 2009, the Committee took evidence directly from children and young people. The Committee also produced a report capturing the views of the children and young people that gave evidence. Further information is available at: <http://www.parliament.nsw.gov.au/children>.

**Recommendation 11:** *That the Staysafe Committee take evidence directly from children and young people as part of its Inquiry process.*

## References

Di Pietro (2004), *Child Development and Road Safety- Relationship between age, development and road safety in children 0-16 years*, Motor Accidents Authority, <http://www.maa.nsw.gov.au/default.aspx?MenuID=379>, accessed 23/09/11.

Doherty K, Mortimer A, Briant D, Palermo R (2003), 'Go 40 for me- School Zone Speed Reduction in Western Sydney, presentation to *2003 Road Safety, Research, Policing and Education Conference*.

Elliott M (2002), *Child Pedestrian Safety in NSW*, Motor Accidents Authority, <http://www.maa.nsw.gov.au/default.aspx?MenuID=381>, accessed 23/09/11.

Graham A, Sparkes P (2010), 'Casualty reductions in NSW associated with the 40 km/h school zone initiative', NSW Centre for Road Safety, RTA, presentation to *2010 Australasian Road Safety, Research, Policing and Education Conference*.

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Worrall B (2010), '40 km/h zones questioned', *Border Mail*, 5 September 2011, <http://www.bordermail.com.au/news/local/news/general/40kmh-zones-questioned/2280365.aspx>, accessed 23/09/11.

## **ATTACHMENT A: Recommendations of Auditor-General's Report, *Improving Road Safety: School Zones***

1. The RTA should retain existing school zone facilities.
2. To improve awareness, the RTA should:
  - ensure that school road safety programs encourage safe behaviour on roads
  - improve the visibility of school zones by increasing use of flashing lights
  - make school zone locations available to GPS users
  - ensure that all school zone signs are correctly installed, of appropriate visibility and in serviceable condition
  - publicise the number of infringements in school zones.
3. To improve compliance, the RTA should:
  - fit flashing lights at all school zones with non-standard operating times
  - consider introducing higher fines for speeding infringements in school zones with flashing lights.
4. To ensure effectiveness, the RTA should:
  - demonstrate that future investment in road safety initiatives is based on transparent assessment of risk
  - inform the public of the effectiveness of its school zone initiatives
  - ensure that school zone speed limits are applied consistently to all schools.
5. The RTA should determine and publish progress on the commitment made by the Minister for Roads in 2006 as to the amount of revenue raised by school zone speed cameras and how much of it is reinvested in road safety projects.
6. The RTA should determine and publish how many of the mobile speed cameras promised in 2006 have been acquired for school zone purposes and how often they have been deployed.

The RTA should be able to demonstrate progress against all these recommendations within 12 months.

7. All organisations, Government and non-Government, private and public, should cooperate to ensure that:
  - new schools are built on roads where the risk of conflict with motor vehicles is minimal
  - school operating hours are standardised wherever possible.