

Level Crossing Strategy Council

Yearly Report 2005/2006



MINISTRY OF TRANSPORT



owner and maintainer of the new rail network
RAILINFRASTRUCTURE
CORPORATION



INDEPENDENT
TRANSPORT
SAFETY AND
RELIABILITY
REGULATOR

Local Government Association of NSW  Shires Association of NSW

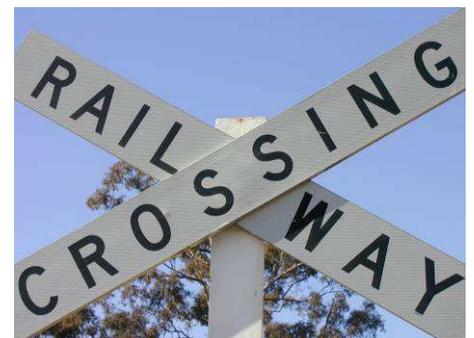


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The Level Crossing Strategy Council agencies and agency representatives are as follows:

- Ministry of Transport
 - Jim Glasson (Chair)
- Independent Transport Safety Reliability Regulator
 - Mike Lane
- Kent Donaldson
- Roads and Traffic Authority
 - Chris Ford
 - Phil Margison
- Rail Infrastructure Corporation
 - Bruce Farrer
 - Bruce Lord
- Local Government and Shires Association
 - Richard Connors
- NSW Police
 - Ron Dorrrough
- RailCorp
 - Vince Graham
 - Derek Williams
 - Gary Seabury
 - Jacqueline Irwin (Secretariat)
- Australian Rail Track Corporation
 - Tim Ryan



Summary

The NSW Government's commitment to an accelerated program of level crossing safety improvements throughout NSW has seen funding levels for the years 2003/2004 to 2006/2007 more than doubled (from \$10m to \$23m).

The commitment to increased funding over several years has enabled agencies to deliver a number of major projects and significant initiatives in 2005/2006.

In 2005/2006 funding for the Level Crossing Improvement Program was \$6m. (Additional to this in 2005/2006 separate funding of \$2m was also allocated to RailCorp for level crossing improvements with the main focus being pedestrian level crossings).

Under the Level Crossing Improvement Program nine major level crossing upgrade projects were commissioned in 2005/2006. A number of other major upgrade projects were also underway in 2005/2006.

Additionally fifteen minor works were completed in 2005/2006. A number of other minor safety improvement projects were also underway as were a range of preliminary project development works. Three level crossings were approved for closure.

Additionally during 2005/2006 a range of strategies and initiatives were developed/delivered including:

- level crossing awareness campaigns
- communication strategy
- rationalisation strategy
- corridor strategy

A Corridor Strategy approach is being developed and implemented for high risk corridors in specific local areas in the state. The Cootamundra to Albury



corridor has been selected as the first corridor for implementation.

The overall goal of using a corridor strategy approach is to achieve a safer road-rail interface through the funding and implementation of flexible and long term solutions across whole precincts.

The Corridor Strategy approach includes a review of rail speed, the level of crossing protection required and rationalisation opportunities.

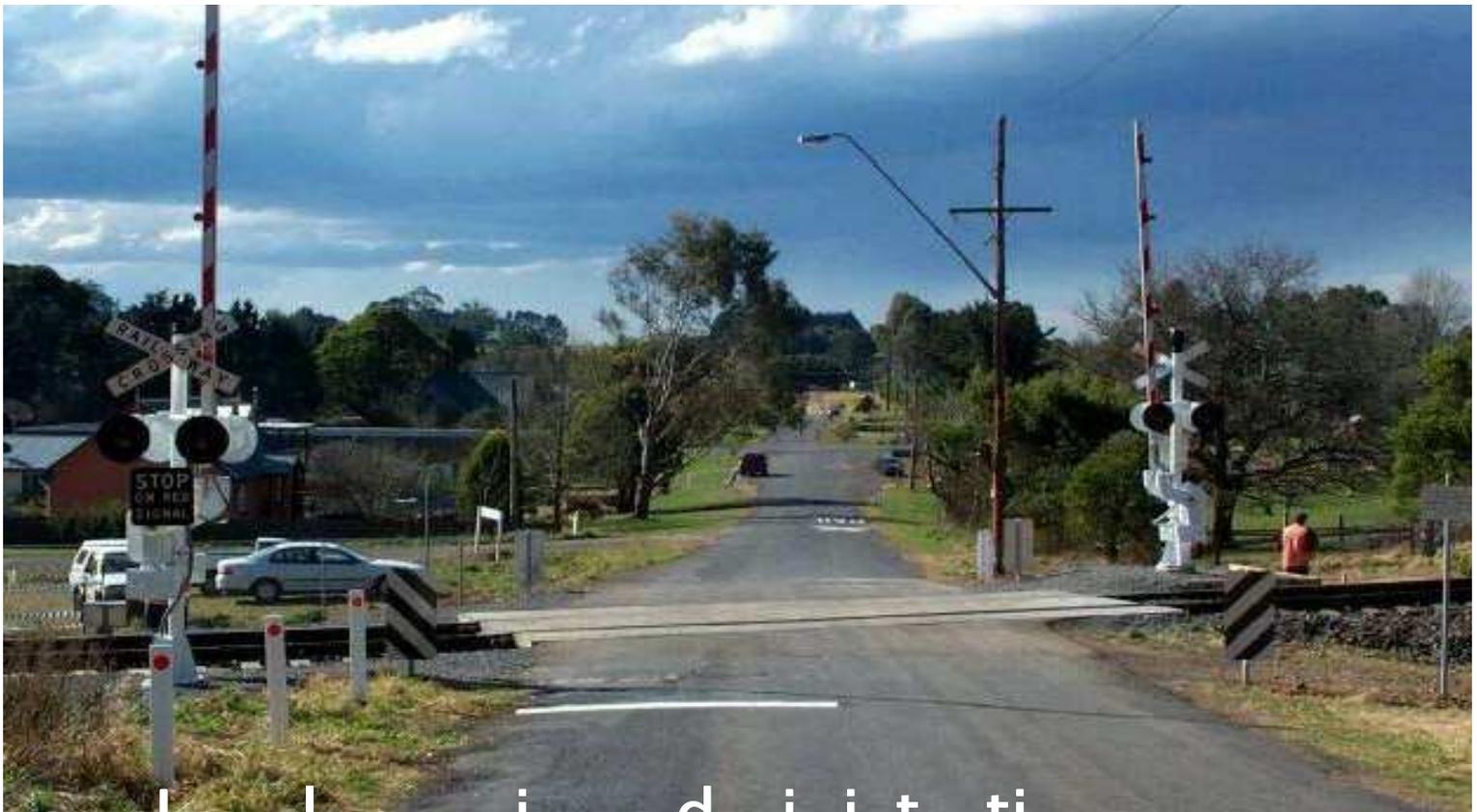
The past year has also seen the continuation of the successful public education and awareness campaign aimed at motorists. The focus is on the dangers associated with railway level crossings and reinforcing the need to obey signage and road rules at railway level crossings. Efforts to provide increased information to the community have also seen the development and implementation of a pedestrian awareness campaign to complement the motorist campaign.

Structural changes in the NSW rail industry in the past couple of years reinforce the importance of the LCSC's role in coordinating level crossing safety initiatives in NSW. Different sections of the NSW rail network are now managed by one of three Network Managers, being RailCorp, Rail Infrastructure Corporation (RIC) and the Australian Rail Track Corporation (ARTC) Limited which, since late 2004 has maintained and operated the mainline interstate and Hunter Valley track, and is now a member of the LCSC. There remains a strong commitment among member agencies to work constructively together and to deliver safety improvements across NSW.

In October 2004 the NSW Parliamentary StaySafe Committee released its final report following its Inquiry into the safety of railway level crossings. The report contained 69 recommendations which potentially will have significant impact on how level crossings are managed. The Government supported the majority of those recommendations and the LCSC monitors progress of their implementation by its member agencies.

There was one fatality at a railway level crossing in NSW this year. This took place at Thurgoona Street, Albury and involved a car and a passenger train. This is a sobering reminder of the significant dangers posed to railway level crossing users and highlights the importance of the work of the LCSC and its member agencies in improving safety at level crossings.





There are more than 3,800 railway level crossings in NSW of which 1500 are public road/public rail crossings. The interface of road and rail at railway level crossings represents a significant risk to road and rail users. Since 1960, a committee of relevant stakeholders has played a key role in improving safety at NSW railway level crossings.

There are a number of NSW agencies with responsibilities for level crossing safety and they are supported in meeting these responsibilities by the Level Crossing Strategy Council (LCSC) which has a coordination role.

The LCSC members are:

- Roads and Traffic Authority (RTA) (responsibility for road related issues);
- Rail Infrastructure Corporation (RIC), RailCorp and Australian Rail Track Corporation (ARTC) (responsibility for rail related issues);
- Ministry of Transport (MoT) (responsibility for transport policy issues) (the Director General of the MoT chairs the LCSC);
- Independent Transport Safety & Reliability Regulator (ITSRR) (responsibility for safety and reliability regulation);
- NSW Police (responsibility for road safety and representation of emergency services); and
- Local Government Association & Shires Association (LGA&SA)



(responsibility for local roads and representation of the interests of local government and local and wider communities).

The LCSC is supported by a Level Crossing Working Group (LCWG) which is comprised of officer level representatives from the member agencies. The Level Crossing Unit (LCU) of RailCorp manages the Level Crossing Assessment Model (LCAM), undertakes level crossing assessments and provides assistance to the LCSC and LCWG as required.

The Level Crossing Assessment Model (LCAM) is used to objectively assess, evaluate and prioritise the (relative) safety risk of railway level crossings, and to assist in determining the treatment options for individual sites.

“... the Level Crossing Assessment Model (LCAM) is used to objectively assess, evaluate and prioritise the (relative) safety risk of railway level crossings, and to determine the optimum treatment for individual sites....”

In 2003 the Australian Transport Council (comprised of federal, state and territory transport ministers) approved LCAM for use nationally to ensure a consistent approach to railway level crossing assessment.

LCAM is used in NSW to prioritise sites to assist in developing the annual Level Crossing Improvement Program. This approach ensures funds are appropriately spent on priority projects to reduce risk and improve safety. The LCSC endorses the program for RTA approval (as funding is allocated via the RTA). The LCSC monitors delivery of the program and ensures consultation between all agencies involved in the works.

In addition to the upgrading of railway level crossings, the closure of railway level crossings, both public and private is actively pursued by LCSC member agencies. Thorough inspection and detailed assessment of the crossing is conducted before closure is pursued. Consultation with the local council, the community, the RTA, emergency services and other road and rail users is conducted prior to recommending closure to the Minister for Transport, whose approval is required before a closure is implemented.

The RailCorp LCU Manager participates in the delivery of national level crossing strategy led by the Australian Railway Crossing Strategy Implementation Group (ARCSIG). The LCU Manager also participates on other national forums relating to level crossings.

In October 2004 the NSW Parliamentary StaySafe Committee released its final report following its Inquiry into the safety of railway level crossings. The report contained 69 recommendations. The Government supported the majority of those recommendations and the LCSC monitors progress of their implementation by its member agencies.





Achievements in 2005/2006

Level Crossings Improvement Program Upgrades

Major upgrade works were commissioned at nine sites across the state in 2005/2006. A number of other major upgrade projects were also underway in 2005/2006.

Major upgrades generally involve the conversion of sites with passive signage only to active protection, or upgrade of sites with flashing lights to boom gates. Last year, LCSC member agencies agreed that upgrades from passive to active protection must include boom gates (and associated lights and bells). Major upgrades generally cost in excess of \$300,000.

Major upgrades commissioned during the year were located at:

- Kendall (River Street);
- Kungala (Kungala Road);
- Coffs Harbour (Jetty Approach Road);
- Gloucester (Jacks Road);
- Muswellbrook (Brook Street);
- Cootamundra (Gundagai Road);
- Parkville (Mareeba Road);



- Islington (Clyde Street); and
- Quirindi (Henry Street).

Minor safety improvements vary and may include the installation of advanced warning lights, high intensity lamp units, Safeflash technology, road and pedestrian facility improvements, signage and road markings.

15 minor safety improvement works were completed at locations including Douglas Park, Bungendore, Tarago, Young, Koorawatha, Maimuru, Shellharbour, Maldon Bellambi, Yanco, Barmedman, Coolaman, Griffith and Temora. A number of other minor safety improvement projects were also underway in 2005/2006.



Commissioned on 7 May, 2006, the \$27,000 minor works upgrade at Bellambi (pictured) included new boom gates, provision of Safeflash, high intensity (LED) lights, width marker signage and removal of non frangible structures on the northern side of the rail line. New pedestrian lights were also installed.

Preliminary planning/project development work was also completed or under way at 32 sites across NSW in preparation for implementation in future years.

Appendix B includes a list of Improvement Program works carried out in 2005/2006 and a map indicating the location of the works.

Other Works

It should also be noted that separate to the \$6m Level Crossing Improvement Program in 2005/2006, RailCorp delivered or commenced development of a number of pedestrian and minor improvement projects at various locations under a separate RailCorp \$2m level crossing budget. Most of the RailCorp project work in 2005/2006 was project development work.

Separately the ARTC delivered a number of improvement works at various level crossings along its track in the north, south and west of the state as part of its maintenance, renewal and upgrade program. In total approximately 100 crossings were improved mainly through installation of level crossing monitoring equipment, upgrade of lights to LEDs, installation of Safeflash technology or installation of additional or extended masts. This included 25 crossings improved in the Hunter (approximate expenditure \$300,000), 30 crossings improved in the North West (approximate expenditure \$700,000), 30 crossings improved on the North Coast (approximate expenditure \$800,000), and 15 crossings improved in the South and West (approximate expenditure \$1.1m).



Additionally in 2005 the RTA completed



grade separation projects at Gerogery and Metford. \$13m was spent at Metford constructing a road underpass which opened in early to mid 2005. A road overbridge was also constructed at Gerogery (pictured). The bridge is officially known as the "Five Mates Crossing" in memory of the 5 men who died at the level crossing in January 2001. The bridge cost was \$23m and it opened in December 2005.

Railway level crossing closures

Three railway level crossings were approved by the Minister for Transport for closure in 2005/2006 and were subsequently published in the NSW Government Gazette. These have been decommissioned or are in the process of being decommissioned. They are located at:

- Bombo, Princess Highway (117.246km) on RailCorp's South Coast Line (involved relocation to alternate site)
- Marulan, Portland Avenue (193.620km) on ARTC's Main South Line
- Gerogery, Patersons private crossing (619.409km) on ARTC's Main South Line (Agreement terminated no gazettal required).

Pictured below is the Portland Avenue, Marulan level crossing with temporary barricades in place prior to decommissioning.



In



2004/2005 the LCSC members agreed to adopt a Level Crossing Rationalisation Strategy to guide the active pursuit of closure of level crossings, both public and private, wherever possible. Further refinement of the Strategy was carried out in 2005/2006. The Strategy was developed to guide the identification, prioritisation and evaluation of potential level crossing closure sites and the delivery of an annual Rationalisation Program. Prospective closures sites are nominated by their LCAM score, by Local Government, the RTA, the rail industry or the general public. The Strategy process includes the following steps for future consideration of railway level crossing closure:

- Step 1 - site nomination;



- Step 2 - site prioritisation;
- Step 3 - site evaluation and initial assessment (including community consultation);
- Step 4 - rationalisation program development (including community consultation);
- Step 5 - rationalisation program delivery;
- Step 6 - development of ministerial submission; and
- Step 7 - decommissioning.



National approach

The RailCorp LCU Manager chairs the Australian Railway Crossing Strategy Implementation Group (ARCSIG). ARCSIG has representation from all state and territories and has a role to implement the national level crossing safety strategy and management plan.

ARCSIG reports to the Standing Committee On Transport Rail Sub-Group (SCOT-Rail Group). SCOT in turn reports to the Australian Transport Council (ATC).

The RailCorp LCU chairs the Australian Level Crossing Assessment Model (ALCAM) Group. The ALCAM Group reports to ARCSIG. The ALCAM Group continues to develop, implement and continuously improve nationally consistent risk assessment methodologies as well as promoting a co-ordinated approach to the ongoing improvement of LCAM.

LCAM was previously endorsed by the SCOT and adopted nationally by the ATC.

During 2005/2006 the ALCAM Group continued the development of the LCAM road assessment matrix and the development of a pedestrian assessment matrix. Workshops were undertaken to progress both matrixes. The pedestrian matrix is now being used on a trial basis.

Standards

Standards Australia is currently revising the 1993 Standard AS1742 "Manual of uniform traffic control devices Part 7: Railway Crossings" in response to requests from both road and railway authorities to bring it up to date with current practices. LCSC member agencies participated in the review of this standard.

The new draft standard DR05314 was released by Standards Australia for public comment in June 2005.

"...the purpose-built pedestrian railway level crossing model at Clyde ... is considered to be world best practice and showcases the requirements of the Commonwealth Disability Act 2002"

NSW agencies made significant contribution to the consideration of disability requirements at railway level crossings. The purpose-built pedestrian railway level crossing trial facility at Clyde has provided a means through which to test new disability requirements. The installation is considered to be world best practice and showcases the requirements of the Commonwealth Disability Act 2002.

Railway level crossing assessments

The Level Crossing Assessment Model (LCAM) is a process to objectively assess, evaluate and prioritise relative safety risk of level crossings. The model considers risk factors such as visibility, train and car volumes and speeds, heavy vehicle usage, number of operational rail tracks and road quality.



LCAM provides a computer analysis of the risk factors for each site and tests proposed treatments. Different scenarios can be run and assessed, so the model can score the optimum treatment. This provides a means to assess how each safety dollar can be spent to generate the greatest safety improvement. The factors considered in the LCAM include:

- how well motorists can see trains;
- the existing protection at the level crossing;
- the frequency of trains passing through the area;
- the number of tracks;
- the volume of road traffic over the crossing;
- adjacent road geometry; and
- potential for motorists to queue on the crossing.

In NSW LCAM is currently driven by desktop data. Projects are underway to collect additional data and validate data to implement the enhanced Australian Level Crossing Assessment Model (ALCAM Version 1.0 - 2005).

Safety initiatives and innovation

During 2005/2006 there has been further development of a corridor approach to managing level crossing safety and assessing level crossing improvements.

A corridor approach enables level crossing safety to be assessed by considering the needs and costs relevant to the whole community. Properly implemented, it will mean that problems are not transferred from one community to another when level crossing improvements and closures are put in place.

The strategy is delivered through an analysis of the priority precincts within the corridor. Factors considered include the LCAM ranking, the Network Manager's strategies and requirements, the potential for successful consultation with the community and constructability. Strategy initiatives are prioritised according to the benefits to the whole corridor. One of the main aims is for the Corridor Strategy approach to be driven by the community through consultation.

The overall goal of using a corridor strategy approach is to achieve a safer road-rail interface through the funding and implementation of flexible and long term solutions across whole precincts.

Initially focus has been on the Main Southern Line within the Cootamundra to Albury corridor. Six precincts are being considered – Table Top, Yerong Creek, The Rock, Bomen, Gerogery and Henty.

A Corridor Strategy Steering Committee and a Project Team are in place to manage implementation. The RTA, ARTC and RailCorp's LCU are represented on both. Discussions with Albury City Council, Lockhart Council and Wagga Wagga City Council and relevant communities have commenced.



A number of level crossing improvement projects and potential closures are already being developed as a result.

Public education and awareness

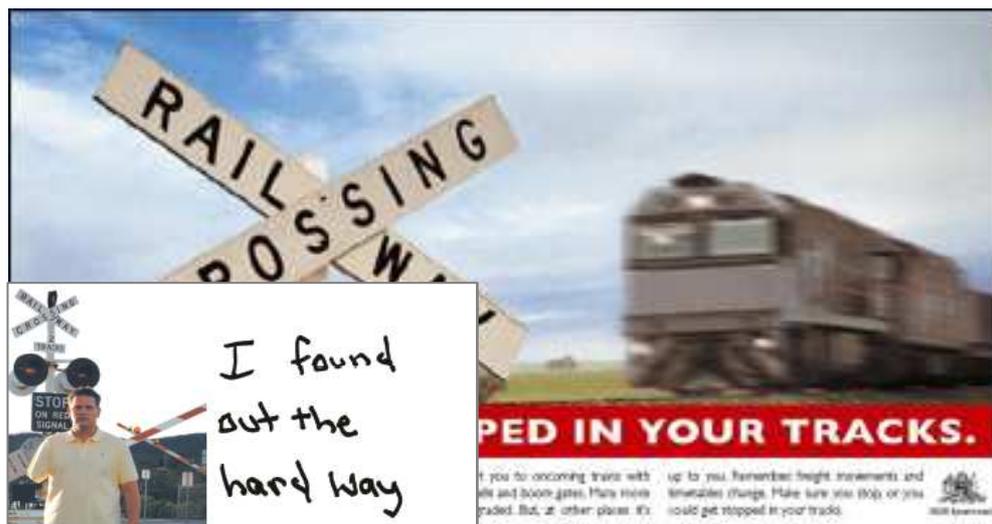
Motorist and pedestrian behaviour change is promoted through community awareness campaigns (education and enforcement) with the aim of reducing risk and improving safety at level crossings across NSW. Changing motorist and pedestrian behaviour is considered important because both are significant causal factors in level crossing incidents.

The objectives of the awareness campaigns are to create awareness about railway crossing safety and to build knowledge as a pre-requisite to motorist and pedestrian behavioural change (longer term).

The **Motorist campaign** was run for the fourth time in June 2006. The RTA continues to be the lead agency for this campaign. The campaign was originally developed by the RTA in partnership with RIC in 2002. The campaign was evaluated in 2003 and in 2005. The evaluation found that messages being conveyed through the campaign are being received and the campaign is effective.

This campaign is now funded half by road (through the RTA) and half by rail (collectively RIC, RailCorp and ARTC). The campaign has included advertising in the media, outdoor advertising and via the web. The aims of the advertising has been to:

- increase awareness of the importance of obeying road rules at level crossings;
- create awareness of the dangers caused by the stopping limitations of trains; and
- increase safe behaviours of drivers crossing railway level crossings.



The **Pedestrian campaign** was developed this year.

RailCorp was the lead agency for this project in consultation with the RTA.

The 5 week campaign was trialled in the Illawarra (South Coast Line) in February and March 2006. The campaign focused on rules for use of pedestrian level crossings, risks at crossings and correct use of crossings. The campaign used TV and radio, press, posters and letterbox drops.

Evaluation of the campaign undertaken in April 2006 found the campaign increased awareness of pedestrian level crossing issues particularly risks at crossings.

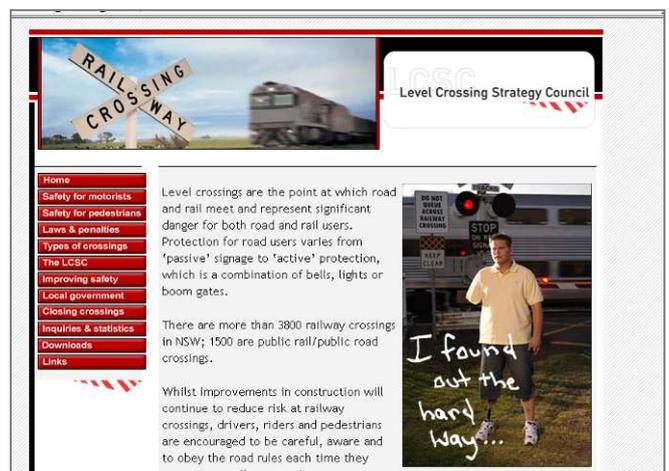
The **Queuing / Enforcement campaign** was also developed in 2006. RailCorp has been the lead agency with participation from the RTA, the local Council and the NSW Police.

The 4 week campaign utilised variable message signs followed by active police enforcement to advise of road rules, particularly relating to queuing across level crossings, and the penalties for not obeying road rules at level crossings. The campaign was trialled at Garfield Road, Riverstone. The variable message signs used are pictured below.



The **webpage** www.levelcrossings.nsw.gov.au was developed in 2004/2005. In 2005/2006 the website was redesigned to include support for the community awareness campaigns and to support the LCSC member agencies. The LCSC endorsed the new look website in March 2006. The webpage now has the following menu options:

- Safety for Motorists
- Safety for Pedestrians
- Laws and Penalties
- Types of Crossings



- The LCSC
- Improving Safety
- Local Government
- Closing Crossings
- Inquiries and Statistics
- Downloads



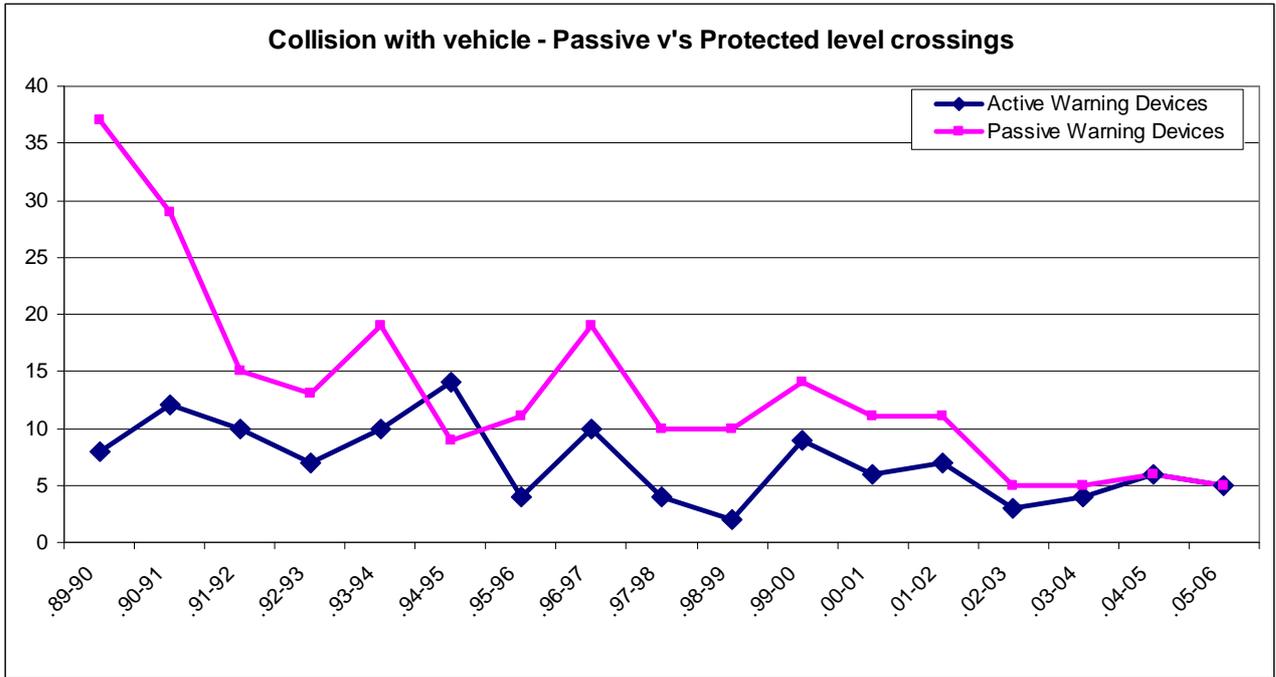


Accident trends

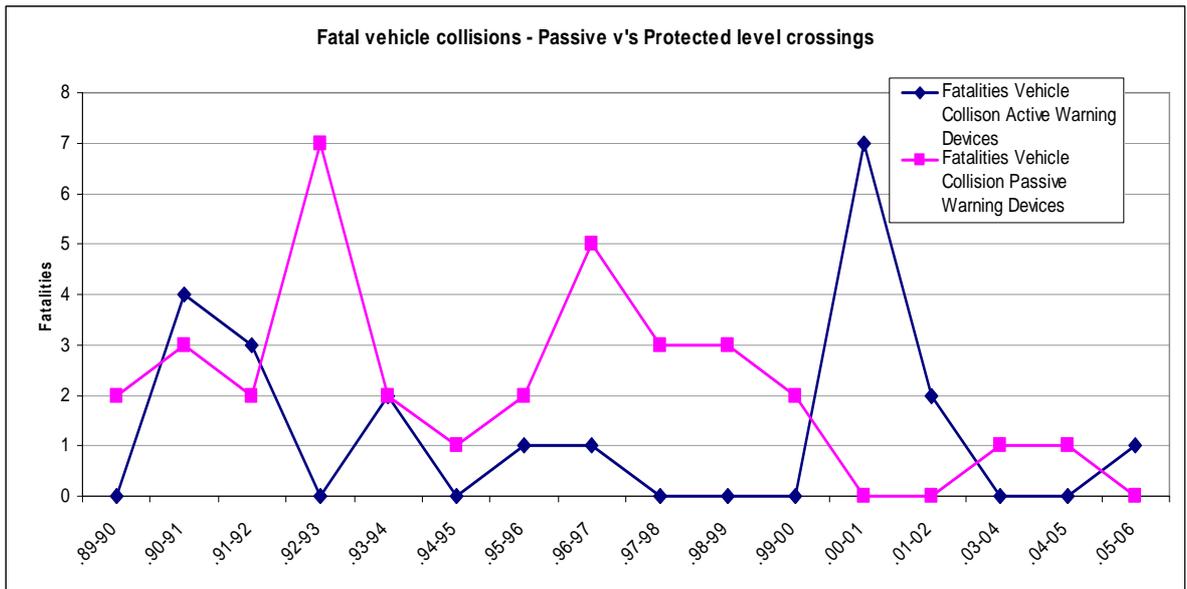
Statistical analysis of accidents at railway level crossings over recent years continues to indicate a general trend downwards. There was one fatality at a railway level crossing in 2005/2006. This took place at Thurgoona Street, Albury and involved a car and a passenger train.

Collisions at railway level crossings (passive vs active)



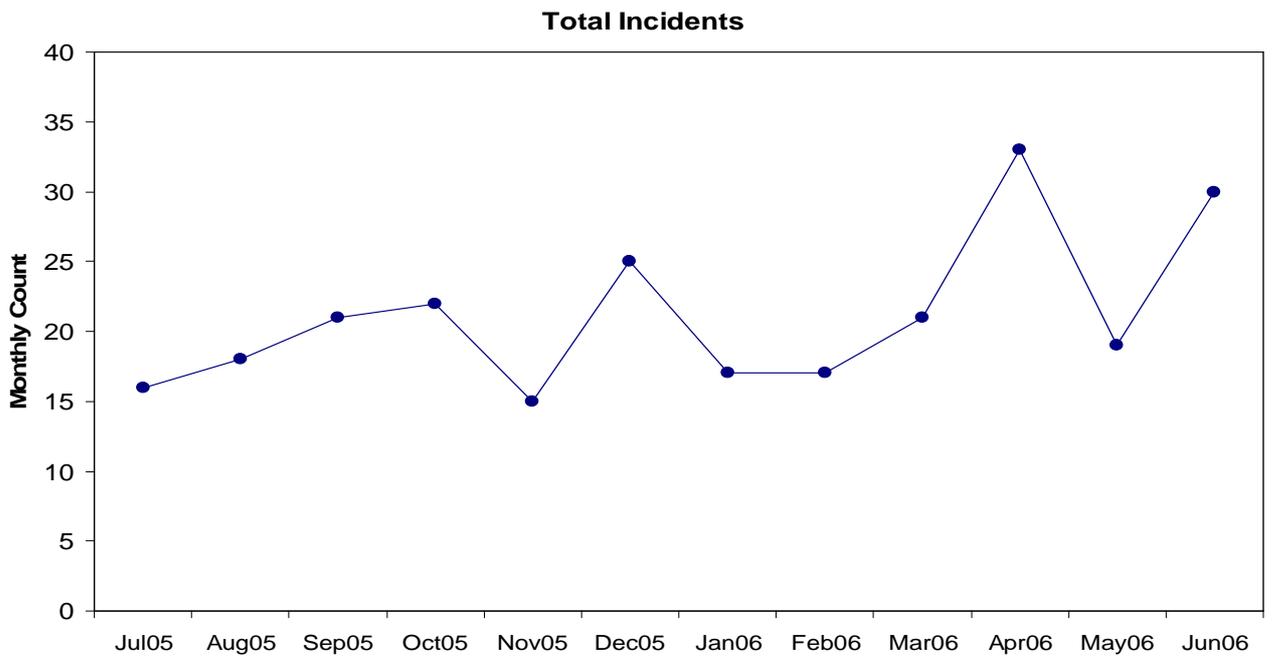


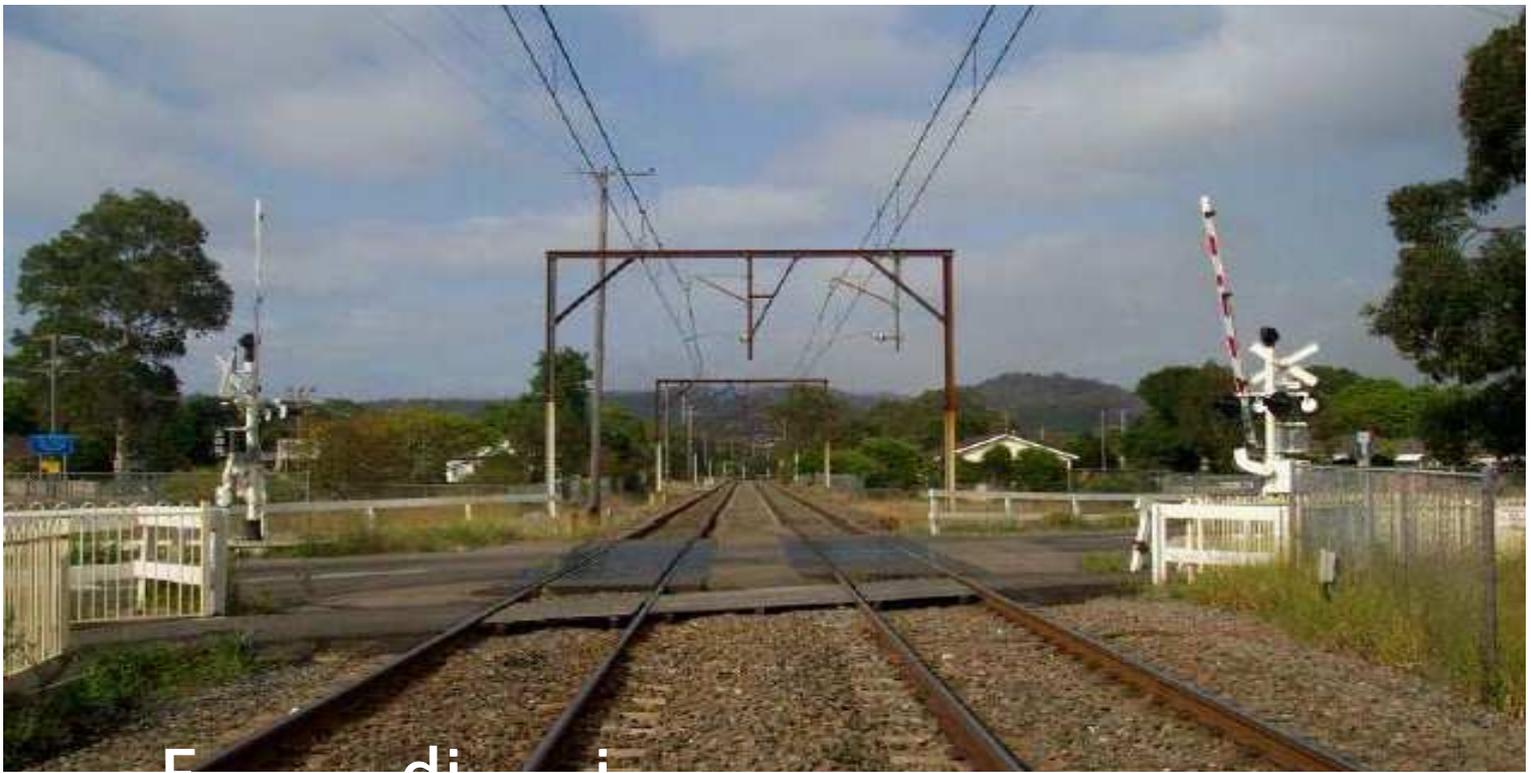
Fatalities at railway level crossings (fatalities resulting from vehicle collisions)



Total Incidents at railway level crossings (month by month during 2005/2006)







Level Crossing Improvement Program

The NSW Level Crossing Improvement Program will continue to be developed and delivered in coming years in accordance with funding provided by the NSW Government.

In the latter half of 2006 the LCSC will coordinate a process to develop Improvement Programs for future years. Consideration will be given to different funding scenarios in order to inform Government about future options for the program.

Corridor Strategy approach

The Corridor Strategy approach will be used for assessing and developing level crossing projects for high priority corridors across the state. A main focus of this approach will be community and stakeholder consultation and involvement.

Rationalisation Program

The Rationalisation Strategy identifies, prioritises and evaluates potential level crossing closure sites and includes stakeholder consultation. There will continue to be a focus on this process for considering and implementing level crossing closures/ rationalisation.

Public awareness

The public awareness campaign will continue to be implemented with pedestrian and motorist campaigns the key focus areas. Specific issues such as motor vehicle queuing across level crossings and pedestrian crossing of level crossings will be targeted.



ALCAM Development and Use

The ALCAM will be further developed, additional level crossing data will be collected and the ALCAM will be utilised for level crossing assessment and program/project development.



Appendix A: Major Projects Photo Gallery

– 9 Major Upgrade Projects Commissioned in 2005/2006

July 2005

1. **River Street Kendall** (pictured right) commissioned in July 2005. Total cost \$114,000.

The existing passive pedestrian mazes were upgraded. Works included:

- Installation of active 'red man' warning lights;
- new wider mazes;
- pedestrian path improvements including path widening,;
- installation of tactile markers to improve path delineation; and
- improved fencing.



August 2005

2. **Kungala Road, Kungala**, (Pictured left) commissioned on 8 August 2005. Total cost \$502,661.

The existing passive stop sign protection was upgraded to:

- flashing lights, bells and retro-reflective boom gates with high intensity (LED) lights; and

Work also included roadworks, improved road marking and signage (to comply with AS1742.7).



September and October 2005

3. **High Street (Jetty Approach Road), Coffs Harbour** (pictured below). This \$383,000 site was jointly funded with Coffs Harbour City Council and a developer. The work included substantial new and realigned footpath, fencing and associated landscaping.

The existing pedestrian active booms on one side of the street were upgraded to provide improved access. The upgrade included:

- pedestrian facilities on both sides of the street;
- active pedestrian swing gates, including emergency exits;
- pedestrian path improvements including path widening,
- installation of tactile markers to improve path delineation;
- improved fencing;
- queuing treatment.

The new swing gates on the northern side of the road were commissioned in September 2005 (picture below left shows the site shortly before commissioning). The swing gates on the southern side of the road were commissioned in October 2005 (picture below



right).



November 2005

4. **Jacks Road, Gloucester** (pictured right) was commissioned on 21 November 2005. Total cost \$301,000.

The existing passive stop sign protection was upgraded with:

- flashing lights, bells and retro-reflective boom gates with high intensity (LED) lights;
- Predictor (constant warning time) device.
- road widening;
- queuing treatment (medians and cross hatching);
- removal of non-frangible material; and
- improved road marking and signage (to comply with AS1742.7).

This site received significant developer funding due to the increased traffic volumes resulting from the development.



5. **Brook Street, Muswellbrook** (pictured right) was commissioned on 11 April 2006. Total cost \$909,000.

The existing lights and bells were upgraded to:

- lights, bells and retro-reflective boom gates, with high intensity (LED) lights;
- queuing treatment (cross hatching or signage), road realignment, widening and medians;
- removal of non-frangible material; and
- improved road marking and signage (to comply with AS1742.7).

The existing passive pedestrian mazes were upgraded to:

- active pedestrian swing gates, including emergency exits;
- pedestrian path improvements including path widening,
- installation of tactile markers to improve path delineation; and
- improved fencing.





April 2006

6. **Gundagai Road, Cootamundra** (pictured left) was commissioned on 23 April 2006. Total cost \$118,255.

The existing lights, bells and booms were upgraded with:

- retro-reflective boom gates, with high intensity (LED) lights;
- additional cross arm lights; and
- improved road marking and signage (to comply with AS1742.7).



May 2006

7. **Mareeba Road, Parkville** (pictured right), was commissioned on 31 May 2006. Total cost \$708,361.

The existing lights and bells were upgraded to address risks associated with trains stopped at the nearby rail siding causing obstruction to motorists sighting of an oncoming train.

The upgrade included:

- lights, bells and retro-reflective boom gates, with high intensity (LED) lights and additional warning lights;
- road realignment, widening and medians;
- removal of non-frangible material. and
- improved road marking and signage (to comply with AS1742.7).

The upgrade included the installation of:

- active pedestrian swing gates, including emergency exits;
- pedestrian pathway;
- tactile markers to improve path delineation; and
- pedestrian fencing.





June 2006

8. **Clyde Street, Islington** (pictured left) was commissioned on 11 June, 2006. Total cost \$731,389.

The existing lights and bells were upgraded. Works included:

- a significant site reconfiguration due to road realignment and road widening;
- installation of retro-reflective boom gates, with high intensity (LED) lights and additional warning lights (relocation included);
- queuing treatment (installation of medians and cross hatching);
- removal of non-frangible material; and
- improved road marking and signage (to comply with AS1742.7).

The existing pedestrian active booms were upgraded to include:

- active pedestrian swing gates, including emergency exits;
- pedestrian path improvements including path widening;
- installation of tactile markers to improve path delineation; and
- improved fencing.



9. **Henry Street, Quirindi** (pictured right) was commissioned on 22 June 2006. Total cost was \$573,000.

The existing lights and bells were upgraded to include:

- retro-reflective boom gates, with high intensity (LED) lights and additional warning lights;
- removal of non-frangible material; and
- improved road marking and signage (to comply with AS1742.7).

The existing passive pedestrian mazes were upgraded to:

- active pedestrian swing gates, including emergency exits;
- pedestrian path improvements including path widening;
- installation of tactile markers to improve path delineation; and
- improved fencing.



Appendix B:

2005/2006 Level Crossing Improvement Program and location of works

No	Town	Location	Cost
MAJOR SAFETY IMPROVEMENTS			
1	Adamstown	St James Road	\$141,000
2	Clergate	Clergate Rd	\$306,000
3	Coffs Harbour	High Street (commissioned)	\$206,000
4	Cootamundra	Gundagai Rd (commissioned)	\$59,000
5	Garema	Pinnacle Rd	\$341,000
6	Glenreagh	Sherwood Creek Rd	\$24,000
7	Gloucester	Jacks Road (commissioned)	\$301, 000
8	Islington	Clyde Street (commissioned)	\$631,000
9	Kendall	River Street (commissioned)	\$17,000
10	Komungla	Currawang Rd	\$192,000
11	Kungala	Kungala Road (commissioned)	\$69,000



12	Muswellbrook	Brook Street (commissioned)	\$874,000
13	Parkville	Mareeba Road (commissioned)	\$610,000
14	Quandialla	Wyalong Rd	\$46,000
15	Quirindi	Henry Street (commissioned)	\$533,000
MINOR SAFETY IMPROVEMENTS/PRELIMINARY WORKS UNDERWAY			
16	Baan Baa	Caloola	\$2,000
17	Bellambi	Bellambi Lane	\$75,000
18	Blackheath	Bundarra Street	\$100,000
19	Broken Hill	Holten Drive	\$7,000
20	Burradoo	Burradoo Rd	\$24,000
21	Civic	Merewether St	\$25,000
22	Corrimal	Railway Pde	\$52,000
23	Craven	Woods Rd	\$38,000
24	Cullerin	Old South Road	\$11,000
25	Dubbo	Boothbah Rd	\$12,000
26	Dubbo	Public Road	\$4,000
27	Fairfield	Pine Road	\$103,000
28	Falconbridge	Clarinda Street	\$76,000
29	Forbes	Bathurst Street	\$6,000
30	Grafton	Fry Street	\$4,000
31	Koolewong	Couche Cres	\$3,000
32	Kyogle	Anderson's Road	\$5,000
33	Lockhart	Lockhart Rd	\$10,000
34	Macksville	Brown's Crossing Rd	\$7,000
35	Moree	Bullus Drive	\$4,000
36	Mt George	Mt George Yard	\$32,000
37	Quandialla	Caragabal Rd	\$13,000
38	Riverstone	Garfield Rd	\$169,000
39	Scone	Liverpool Street	\$44,000
40	Shellharbour	Shellharbour Rd	\$17,000
41	Stockinbingal	Grogan Rd	\$18,000
42	Stockinbingal	West Street	\$1,000
43	Stratford	Crowthers Road	\$37,000
44	Tallimba	Wyalong Rd	\$3,000
45	Tamworth	Robert Street	\$27,000
46	Unanderra	Nolan Street	\$59,000
47	Valla	Schnapper Beach Rd	\$5,000
48	Wards River	Johnson Creek Rd	\$16,000
49	Warral	Warral Road	\$2,000
50	Wickham	Railway Street	\$11,000
51	Woonona	Park Road	\$47,000
CORRIDOR STRATEGY			
52	Culcairn	Balfour St & Olympic Hwy	\$9,000
53	The Rock	Urana Street	\$9,000
54	Yerong Creek	Plunkett Street	\$14,000
55	Griffith Council Area		\$80,000.00
56	Cootamundra to Albury		\$183,000.00
CLOSURES			
57	Grafton	Junction Hill	\$2,000
58	Marulan	Stoney Creek Rd	\$72,000
59	Gunning	Oolong Road	\$12,000
60	Albury	Thurgoona Drive	\$13,000



61	Narrandera	Whitton Street	\$1,000
62	Temora	Polaris Street	\$17,000
OTHER MINOR WORKS			
63	Barmedman	Temora Rd	\$13,050.00
64	Bungendore	Malbon St	\$17,700.00
65	Coolaman	Cowabbie Rd	\$20,150.00
66	Douglas Park	Camden Rd	\$2, 850.00
67	Griffith	Crossing Street	\$19,350.00
68	Koorawatha	Olympic Way	\$7, 650.00
69	Maimuru	Olympic Way	\$7, 050.00
70	Maldon	Wilton Rd	\$2, 850.00
71	Tarago	Cooma Rd	\$2, 850.00
72	Temora	June Rd	\$19,500.00
73	Temora	Victoria St	\$13,050.00
74	Yanco	Trunk Rd	\$11,250.00
75	Young	Main St	\$7, 050.00
	Other Minor Works		\$62,000.00
OTHER			
Queue Monitoring			\$38,000
Education and Enforcement Campaign			\$59,000
Data Collection			\$133,000
TOTAL			\$6,267,000



