



REVIEW OF OPERATIONS

Transport

Transport

The RTA manages the transport system to provide reliable and efficient movement of people and goods.

The NSW road transport system

The transport system is crucial to the prosperity and well-being of the NSW community. The RTA's role is to develop the road network to meet the needs of a growing population, including day-to-day transport requirements of individuals, and the growing freight task. In this role, the RTA manages a major program of new road and bridge works, from the inner suburbs of Sydney to the far corners of the State.

The RTA also promotes alternatives to motor vehicle travel – such as public transport, cycling and walking – through the provision of infrastructure and a range of innovative programs to encourage sustainable methods of transport.

Another key RTA role is the management of traffic on the road system. The RTA leads the world in technology to promote efficient traffic movement. The Authority also takes the lead in managing traffic during major events – both planned and unplanned.

Development

Project delivery

During the year, the RTA managed the development and construction of 88 major projects with a total expenditure of almost \$1.4 billion (excluding private expenditure), and opened 11 of those projects to traffic. Appendix 1 contains details of progress on all major projects.

Motorways

Lane Cove Tunnel

The Lane Cove Tunnel was opened on 25 March 2007. The tunnel provides a link between the M2 Motorway and the Gore Hill Freeway and is the final link in the Sydney Orbital Motorway network, connecting the north-west sector of Sydney with the city. New ramps have been provided to and from the north between Falcon Street at Neutral Bay and the Warringah Freeway to improve access to the Gore Hill Freeway–M2 corridor.

Stage 2 of the project, which included the reconfiguration of Epping Road and the introduction of bus lanes and a shared pedestrian/cycle path, was substantially completed on 10 March 2008. Transit lanes were also introduced on the widened Gore Hill Freeway from the Pacific Highway to the Warringah Freeway. Final landscaping will be completed in September 2008. Local access has been improved by introducing right turns into Parklands Avenue and Centennial Avenue, Lane Cove.

At 30 June 2008 the tunnel was being used by around 55,000 vehicles every weekday. Tolling is fully electronic and interoperable with other Sydney toll roads.

Connector Motorways Pty Ltd will operate and maintain the tunnel for 30 years.

Following community consultation for the Falcon Street access ramps, the RTA agreed to provide a new pedestrian/cycle bridge across the Warringah Freeway between Falcon Street at North Sydney and Merlin Street in Neutral Bay, providing direct access to Military Road.

Tenders were invited for the construction of the new bridge and other facilities in June 2008 and construction work will begin in September 2008. The \$15 million project will provide a continuous, uninterrupted crossing for pedestrians and cyclists travelling along this busy route.

M4 Motorway extension

The M4 Motorway services a significant economic corridor, from Penrith through Sydney Olympic Park to the city, which is expected to grow considerably in population and employment density. The Government's Metropolitan Strategy for Sydney, released in December 2005, highlighted the critical significance of better linkages between Port Botany, Sydney Airport and Western Sydney.

With both of these factors in mind, the RTA continued investigations into an eastern extension of the M4 from Strathfield to improve the road connection between these economic gateways. This planning is in line with the Government's Metropolitan Strategy for Sydney, the State Infrastructure Strategy and the Urban Transport Statement. These documents are available online at www.nsw.gov.au.

F3 Freeway to M2 Hills Motorway link

A proposed new section of motorway would connect the F3 Freeway at Wahroonga with the M2 at Carlingford.

In May 2004, the Federal Government announced the preferred corridor option for the link. Following the announcement, a number of representations were received from the community. A subsequent independent review of the corridor selection process, published in August 2007, concluded that the original 2004 study recommendations should be upheld: that is, the preferred Pennant Hills Road or 'Purple Route' corridor option should be progressed and an additional western corridor should be separately planned.

The RTA is reviewing and updating traffic demand forecasts, capital cost estimates and forecast revenue of the 'Purple Route' for consideration by the Federal Government.

M5 East filtration plant



Artist impression of footbridge over M5 East Filtration Plant.

Construction of a \$65 million filtration plant began in April 2008 to remove particulate matter and nitrogen dioxide from air extracted from the western end of the M5 East westbound tunnel.

The plant was part of an Air Quality Improvement Plan for the tunnel, announced in June 2006. In July 2007, the Minister for Planning announced a modified approval for the M5 East Motorway to enable the construction and operation of the filtration plant. The plant is due to be operational by the end of 2009.

When completed, the plant will be capable of continuously drawing 200m³ of air per second from the westbound tunnel, removing particulate matter from this air, removing nitrogen dioxide from 50m³ of the same air and then returning the treated air to the westbound tunnel.

Following 18 months of operation, a report will assess the efficiency of the filtration systems and the effectiveness of the plant in reducing visible haze in the westbound tunnel.

M2 upgrade

A proposal has been received from Transurban, owner of the Hills M2 Motorway, to enhance and widen the motorway. The proposal includes widening sections of the motorway from two to three lanes, construction of new west facing ramps at Windsor Road and east facing ramps at Herring Road, Macquarie Park.

The M2 Motorway is one of Sydney's busiest roads, providing an important link between the M7 and Lane Cove Tunnel and carries around 110,000 vehicles and 45,000 bus passengers a day.

Upgrading the M2 would relieve congestion and prepare it for additional growth, with 140,000 new homes and 100,000 new jobs planned for Sydney's north-west over the next 25 years.

M5 transport corridor study

The Australian and NSW governments have committed \$15 million for a feasibility study of potential improvements to the M5 transport corridor from Port Botany/Sydney Airport to south-west Sydney.

The study will develop a preferred transport strategy, including an outline of improvements to public transport services and possible capacity enhancement options for the M5 East Motorway.

The study is being overseen by a task force convened by the NSW Coordinator General, and includes the Chief Executive of the RTA and senior representatives from the Ministry of Transport, Department of Planning and NSW Treasury.

Pacific Highway Upgrading Program

The Pacific Highway not only links Sydney and Brisbane, it passes through regions that continue to experience the State's highest rates of population growth. This growth has increased pressure on the road transport system. In response, the RTA has overseen improvements in road infrastructure to allow safe and efficient transport along the route. The jointly-funded upgrading program began in 1996 following an initial 10-year agreement between the NSW and Federal governments. By the end of 2009, the NSW Government will have spent \$2.45 billion and the Federal Government \$1.45 billion on the upgrade.

By June 2008, 267km of the highway's 679km length were double-lane divided road with travel time savings of about 70 minutes for both heavy and light vehicles. A further 87km are under construction and all other sections are either approved for construction or have had a preferred route identified.

The number of fatal crashes has fallen from around 31 per year to 24 per year, despite a 50 per cent increase in travel on much of the highway.

Tomago Road and Old Punt Road junctions

Construction began in February 2007 on an \$8 million project to install traffic signals at the junctions of the Pacific Highway with Tomago Road and Old Punt Road at Tomago. The project is designed to improve safety and traffic flow. The traffic signals were completed by December 2007 and associated work is expected to be finalised by October 2008.

Karah to Bulahdelah sections 2 and 3

Construction began in March 2007 on this \$262 million project to provide 23km of dual carriageway, generally following the existing highway alignment. The project includes seven pairs of new bridges and rest areas located on the northbound carriageway at Nerong Waterholes and the southbound carriageway at Browns Flat. The upgrade is expected to be completed by late 2009.



Site inspection: Staff from the Hunter Region Office took a tour of the Pacific Highway upgrade at Burdekins Gap.

Bulahdelah Bypass

Early work and detailed design have begun following planning approval in October 2007. The first stage of early earthwork construction has started south of the Myall River.

Cooperook to Herons Creek

The Cooperook to Herons Creek project incorporates the Cooperook to Moorland and Moorland to Herons Creek upgrades. Construction of these projects, which have been combined to achieve economies of scale, began in October 2007 and is expected to be completed in late 2009. The projects will provide 32.2km of dual carriageway.

Bonville Bypass

The upgrade of this section of the highway between Perrys Road and Lyons Road south of Coffs Harbour is due to open in September 2008. The \$245 million Bonville Bypass will complete 17.5km of dual carriageway between Coffs Harbour and Urunga.

Ballina Bypass

An alliance for the main construction of the bypass was formed in June 2008, with substantial construction also beginning that month. The preconstruction earthworks on this project began in September 2006 and were completed in September 2007.

The Ballina Bypass project will provide 11.6km of dual carriageway road, extending from south of Ballina at the intersection of the Bruxner and Pacific highways to north of Ballina at the intersection with Ross Lane at Tintenbar.

Tugun Bypass

The Tugun Bypass connects the Pacific Motorway Stewart Road interchange at Currumbin in Queensland with the Tweed Heads Bypass north of Kennedy Drive. The project was funded by the Australian and Queensland governments with technical assistance provided by the RTA. The Tugun Bypass was completed and opened to traffic in June 2008.

Other highlights

The Pacific Highway upgrade also reached the following milestones in 2007-08:

- Display of the environmental assessments for Kempsey to Eungai, Sapphire to Woolgoolga and Banora Point.
- Release of the outcomes of the Warrell Creek review and Macksville to Urunga concept design (these two projects are now combined and referred to as the Warrell Creek to Urunga upgrade).
- Submission of the planning application under Part 3A of the *Environmental Planning and Assessment Act* for the Warrell Creek to Urunga upgrade.
- Release of the Oxley Highway to Kempsey and Tintenbar to Ewingsdale highway access strategies.
- Approval of the Review of Environmental Factors for Herons Creek to Stills Road and start of detailed design.
- Display of the Woolgoolga to Wells Crossing and Woodburn to Ballina concept designs.
- Display of the Review of Environmental Factors for Failford Road to Tritton Road.

Sydney projects

F3 Freeway, Cowan to Mount Colah

Construction began in January 2007 to widen a 11.5km section of the F3 Freeway between Cowan and Mount Colah from four to six lanes. The \$119 million project is jointly funded by the Australian and NSW governments and is expected to be completed in mid 2009. Once the project is completed, the F3 Freeway will have six continuous lanes between the southern end of the freeway at Wahroonga and the Gosford exit at Kariong, a distance of approximately 43km.

Victoria Road upgrade

The Victoria Road upgrade, including the Iron Cove Bridge duplication, seeks to improve the efficiency and reliability of bus services between Gladesville Bridge and The Crescent at Rozelle, by providing 'citybound' bus lanes during the morning and evening peak periods.

The project is estimated to cost \$156 million. Following extensive community consultation the proposal was revised to minimise local impacts while still providing the required improvements to public transport. A preferred option will be announced in July 2008. Environmental assessment and more detailed project planning will now be undertaken.

Windsor Road upgrade

The \$127 million Windsor flood evacuation route across South Creek was opened to traffic in September 2007, providing Windsor residents additional time to evacuate to safety in the event of a major flood, alleviating traffic congestion between McGraths Hill and Windsor, and providing a more direct route for motorists travelling between Richmond and Windsor Road.



Thousands of people participated in the historic Windsor Flood Evacuation Route bridge walk.

Alfords Point Bridge

Construction of the \$42 million duplication of Alfords Point Bridge over the Georges River began in early 2007. This project will eliminate the tidal traffic flow arrangements on the existing bridge and will be opened to traffic in August 2008. Planning for widening of the northern approach to the Alfords Point Bridge is also underway with the Review of Environmental Factors displayed for public comment in December 2007 and planning approval achieved in May 2008. The RTA plans to invite tenders for the work in late 2008.



Deck completion at Alfords Point. Left to right – Premier Morris Iemma, Member for East Hills Alan Ashford, Minister for Roads Eric Roozendaal, Member for Menai Alison Megarrity and RTA Project Manager Peter Ross inspect the progress, April 2008.

Hoxton Park Road upgrade

Hoxton Park Road is being progressively upgraded to provide a divided road of at least four lanes and an off-road cycleway. It carries the Liverpool to Parramatta transitway on two separate, central lanes between Banks Road and Brickmakers Creek. Tenders for the \$71 million final section between Cowpasture Road and Banks Road were invited in April 2008 and work is planned to begin in late 2008.

Cowpasture Road upgrade



Left to right – Minister for Roads Eric Roozendaal, Liverpool MP Paul Lynch and Macquarie Fields MP Andrew McDonald inspecting work at Cowpasture Road, June 2008.

Cowpasture Road was a 12.8km, two-lane, undivided arterial road from the roundabout at The Horsley Drive, Wetherill Park, to Camden Valley Way, Leppington. It is being progressively upgraded to a four-lane divided road. The last two remaining lengths to be upgraded are from Main Street to Camden Valley Way and from North Liverpool Road to the M7.

Construction of the \$21 million upgrade from Main Street to Camden Valley Way began in June 2008 and is scheduled to be opened to traffic in mid 2009. Tenders were invited for the \$78 million upgrade from North Liverpool Road to the M7 in June 2008 and work is planned to start in late 2008.

Narellan Road extension

This \$33 million project was completed and opened to traffic in October 2007. The project extends Narellan Road by 1.1km to intersect with The Northern Road.



RTA staff Geoff Fogarty and Vasee Vaseeharan inspecting work on the Narellan Road extension.

Camden Valley Way upgrade

A Review of Environmental Factors was displayed in December 2007 for the \$65 million upgrade of Camden Valley Way from Bernera Road to Cowpasture Road. The RTA plans to invite tenders for this work in early 2009. In addition, the RTA is progressing concept design and environmental assessment for the four-lane upgrade of Camden Valley Way between Cowpasture Road and Narellan Road.

Great Western Highway

The Great Western Highway upgrade program is improving travel times for motorists and providing a safer road environment for all road users including pedestrians and cyclists. The NSW Government has committed \$360 million towards the upgrade, with the Federal Government contributing \$100 million and committing a further \$100 million.



Great Western Highway: Leura Mall facing west (looking towards Katoomba).

Leura to Katoomba

Section 1 of the Leura to Katoomba upgrade between Willow Park Avenue and East View Avenue was opened to traffic in 2006 and the \$25 million Section 2 between East View Avenue and Bowling Green Avenue is scheduled to be opened in late 2008. The major feature of this project is a grade separated interchange at Leura Mall to provide access for local road users and preserve local heritage.

Woodford to Hazelbrook

Work continued on the \$160 million upgrade from Woodford to Hazelbrook with the Oaklands Road local traffic railway underpass and Hazelbrook Parade completed. Work started on the highway widening between Winbourne Road and Ferguson Avenue. Tenders are scheduled to be invited for the section from Station Street to Winbourne Road in late 2008.

Lawson

Planning and preconstruction for the \$220 million Lawson upgrade between Honour Avenue and Ridge Street continued. A request for proposals for an alliance contract with the RTA was issued in June 2008. An agreement is expected to be signed in late 2008 and construction planned to begin in 2009.

Wentworth Falls East

Concept design and environmental assessment has been completed and the detailed design is being prepared through an alliance contract and will be completed in August 2008. A contract for preliminary drainage work is expected to be awarded in late 2008.

Mt Victoria to Lithgow

Investigations and planning have begun to develop options for the upgrade of the highway between Mt Victoria and Lithgow. Community consultation for selection of a new route began in 2008.

Other projects on the Great Western Highway

Planning, investigations and environmental assessments continued on the remaining sections of the highway to be upgraded through Bullaburra and Wentworth Falls. The preferred option for Bullaburra to Wentworth Falls was announced in September 2007 and the preferred option for Bullaburra Village is to be announced later in 2008.

Improving access between cities and regions

Hume Highway

Southern Hume Highway duplication

The Federal Government aims to have full dual carriageways on the Hume Highway by 2012. There are 87km to upgrade between the Sturt Highway and Table Top near Albury. In June 2006 the NSW and Federal governments signed a Memorandum of Understanding to accelerate 67km of duplication and the Federal Government provided \$800 million to complete the work by December 2009. The interest earned on this funding will also be applied to the project. This will leave 20km of highway as single carriageway at Tarcutta, Holbrook and Woomargama.

Two alliance partners for the duplication were engaged in December 2006: the Northern Hume Alliance for 35km and the Hume Highway Southern Alliance for 32km. Substantial work began in October 2007 and the project is on track for completion by December 2009.



Work underway on the Southern Hume Highway Duplication

Bypasses of Tarcutta, Holbrook and Woomargama

A contract was awarded in October 2007 to assist in the route selection and planning of the three bypasses. Preferred routes are expected to be confirmed in the second half of 2008 and project planning approvals are expected in mid 2009. The bypasses of Tarcutta, Holbrook and Woomargama will make up the final 20km of dual carriageway highway to be completed by 2012.

Sheahan Bridge duplication, Gundagai

A contract to design and construct the Sheahan Bridge duplication was awarded in September 2007. The \$78 million project is fully funded by the Federal Government. On completion of this bridge duplication and the Coolac Bypass, the Hume Highway will be dual carriageway between Sydney and the Sturt Highway. Completion of the project is expected in late 2009.

Coolac Bypass

A contract was awarded on 28 February 2007 for the \$179 million Coolac Bypass project and construction began in May 2007. The project comprises a 12km four-lane bypass and a 4km reconstruction of the northbound carriageway between Muttama Creek and the Dog-on-the-Tuckerbox. Completion of the project is expected in late 2009. The project is fully funded by the Federal Government.

Towrang Road and Carrick Road junction improvement

The \$6 million project to improve the two junctions at Towrang, north of Goulburn, was opened to traffic in August 2007, with the final layer of asphalt pavement completed in November 2007.

Northbound upgrade, Brooks Road to Camden Valley Way, Ingleburn

The \$30 million northbound widening of the Hume Highway (F5 Freeway) between Brooks Road and Camden Valley Way will be opened to traffic in August 2008. The project was jointly funded by the Federal Government (80 per cent) and the NSW Government (20 per cent).

Newell Highway

Moree Town Centre Bypass

The project will remove heavy vehicles from the town centre and improve safety and access. A contract was awarded in August 2007 for Stage 1 construction comprising a new Mehi River Bridge and northern roadwork. Detailed design of Stage 2 comprising roadwork through Moree is complete, however tenders for construction have been delayed while land contamination is rectified by a third party. The \$56 million project is fully funded by the Federal Government.

Princes Highway

Lawrence Hargrave Drive intersection upgrade

Planning continued for a major upgrade of this intersection, situated at the foot of Bulli Pass. The preferred option was displayed for community comment in November 2006. Concept design and environmental assessment were completed, preparatory work began and construction tenders are scheduled to be invited in late 2008.

Wollongong Northern Distributor

The major construction contract for the \$101 million Northern Distributor extension in Wollongong was awarded in December 2006 and work began in April 2007. The Northern Distributor will be extended by 3km through Wollongong's northern suburbs from Bellambi Lane to the Princes Highway at Molloy Street, Bulli. It will provide a four-lane divided carriageway with four new intersections along the route (two grade separated intersections at Campbell Street and Park Road). The proposal also includes an off-road shared pedestrian cycle bridge at Farrell Road and 2.5m wide sealed shoulders on both sides for cyclists. The project is expected to be opened to traffic in mid 2009.

Oak Flats to Dunmore

Construction of the \$130 million Oak Flats to Dunmore deviation continued. This 5.5km four-lane divided carriageway deviation of the Princes Highway will link the Oak Flats Interchange with the North Kiama Bypass, providing four lanes to south of Kiama. A contract for the work was awarded in February 2007 and site work began in June 2007. Work to upgrade Shellharbour Road to four lanes to provide improved connectivity with the Princes Highway has been carried out by RTA and is due for completion in late 2008. When completed in late 2009 the whole project will significantly improve road safety, reduce congestion and improve traffic flow.



Aerial view of Oaks Flats to Dunmore.

Kiama Ramps

Construction began in September 2007 to provide two additional ramps on the Kiama Bypass. The work is being undertaken by the RTA and the \$14 million project is expected to be completed in late 2008.

Gerringong to Bomaderry

Work has continued on selecting a route for the future upgrade of the Princes Highway between Gerringong and Bomaderry. A number of options were displayed in November 2007 and in May 2008 an independent workshop called a Value Management Workshop was held with a variety of internal and external stakeholder representatives to assist in assessment of route options for the project. The preferred route is expected to be selected by late 2008.

South Nowra road safety improvements

Work began in June 2007 to widen part of the Princes Highway between South Nowra and Jarvis Bay Road to four-lanes, including duplication of the two-lane bridge over Currumbene Creek. The \$23.5 million project is jointly funded with the Federal Government contributing \$15 million and the NSW Government \$8.5 million. The project is expected to open to traffic by the end of 2008.

Conjola Mountain realignment

Funding for this project includes a \$10 million contribution from the Federal Government arranged by the Southern Region of Councils. A contract for Stage 1 (bridge over Conjola Creek) was awarded in August 2007 and completion is due in December 2008. Tenders for the remaining work were invited in May 2008.

Pambula Bridge and approaches

A \$17 million project to construct a new bridge and approaches was opened in March 2008. The project was jointly funded with the Federal Government contributing \$5 million and the NSW Government \$12 million.

New England Highway

F3 Freeway to Branxton

Planning continued for the 39.5km link between the F3 Freeway at Seahampton and the New England Highway west of Branxton. The four-lane link would relieve congestion on the New England Highway in Maitland and provide a high standard east-west connection between the Newcastle regional centre and urban centres in the lower Hunter.

Planning approval for the modified design was received from both the NSW Department of Planning and the Australian Department of the Environment, Water, Heritage and the Arts. However, planning for the project has been suspended by the Federal Government pending the completion of a comprehensive transport study of the Lower Hunter that will identify potential solutions to the transport needs of the community. The results of the study will be submitted to Infrastructure Australia by the end of 2008 for consideration in its National Infrastructure Audit that will determine future infrastructure priorities.

Weakleys Drive Interchange

Construction continued on the interchange at Weakleys Drive, Beresfield. A significant milestone was achieved with the erection of bridge girders in June 2008. The girders form part of the New England Highway bridge over Weakleys Drive and will have a clear span of 60m. The project will eliminate three sets of traffic signals for through traffic on the New England Highway. The \$51.8 million project is fully funded by the Federal Government and is expected to be completed by the end of 2008.



Night works: Erection of the bridge girders, June 2008.



Night works: Erection of the bridge girders over Weakleys Drive Interchange, June 2008.

Halcombe Hill

The \$15.4 million realignment of the New England Highway and a new rail overbridge at Halcombe Hill just north of Aberdeen was opened to traffic in August 2007. The project was fully funded by the Federal Government.

Other Newcastle and Hunter projects

Newcastle Inner City Bypass

Planning continued on the Newcastle Inner City Bypass to provide a high standard orbital road linking Newcastle's radial road network. Detailed planning is progressing on the next stage of the bypass from Sandgate Road, Shortland, to the Pacific Highway, Sandgate. In September 2007 the environmental assessment report for the 1.8km Shortland to Sandgate section was approved. Concept design is now progressing.

Preliminary planning for the Rankin Park to Jesmond section that would pass to the west of John Hunter Hospital has been finalised and a preferred route adopted for inclusion in Newcastle City Council's Local Environmental Plan. Although the Rankin Park to Jesmond section is not expected to be needed for many years, identification of the preferred route will provide certainty for residents and businesses about the upgrade's location.

Tourle Street bridge replacement, Mayfield West

Construction began in October 2007 to provide a new two-lane crossing of the Hunter River replacing the existing Tourle Street Bridge. The \$47 million project is expected to be completed in mid 2009.

Nelson Bay Road, Bobs Farm to Anna Bay

The \$12 million second stage of the project to upgrade Nelson Bay Road at Bobs Farm was opened to traffic in August 2007. The project involved the widening from two to four-lanes of 1.6km of Nelson Bay Road from south of Marsh Road to north of Cromarty Lane, Bobs Farm. This project is the second of three stages to upgrade Nelson Bay Road from Bobs Farm to Port Stephens Drive, Anna Bay, to four lanes. Planning is progressing for the remainder of the project.

Third Hunter River Crossing at East Maitland

Preliminary work began in March 2007 for a new two-lane road and bridge crossing of the Hunter River between East Maitland and Bolwarra. Stage 1 of the project, comprising an upgrade of the intersection at the New England Highway and Melbourne Street and the installation of traffic signals at the Melbourne Street/Lawes Street and Pitnacree Road intersection in East Maitland, was completed in October 2007. Stage 2 work, consisting of bridge work over the Hunter River and roadwork between Paterson Road, Bolwarra and Melbourne Street, East Maitland is expected to begin in 2009.

Central Coast projects

Central Coast Highway (The Entrance Road) Terrigal Drive to Carlton Road, Erina

The \$15 million project to upgrade a 600m length of the Central Coast Highway was opened to traffic in August 2007. The project provides two lanes in each direction, bus bays, a shared pedestrian/bicycle path along the full length of the work and a service road to provide access for local residents.



Aerial view of Central Coast Highway (Terrigal Drive to Carlton Road).



Central Coast Highway, upgrade work.

Carlton Road to Ocean View Drive, Wamberal

Planning continued for the staged upgrade of this 4.4km length. The project is the final stage of a four-lane divided carriageway between the F3 at Kariong and Tumbi Road at Wamberal. A preferred option was announced in January 2008.

Ocean View Drive to Tumbi Road, Wamberal

This project provides two lanes in each direction, a continuous off-road cycleway, bus bays and pedestrian facilities for the full 1.5km length. Work on the Ocean View Drive to Pitt Road section began in March 2007 and will open to traffic in July 2008. Work started on the Pitt Road to Tumbi Road section in June 2006 and was opened to traffic in December 2007. The project is estimated to cost \$42 million.

Avoca Drive

Central Coast Highway to Sun Valley Road, Green Point

This \$9 million project was opened to traffic in December 2007. The project provides an additional lane in each direction between the Central Coast Highway and Sun Valley Road, and includes an off-road cycleway for its complete length of 700m.

Sun Valley Road to Bayside Drive, Green Point

Planning continued to extend the dual carriageways south of Sun Valley Road for a further 1.2km to complete a continuous four-lanes from the Central Coast Highway to Davistown Road. The environmental assessment was displayed for community comment in December 2007 and tenders for construction are planned to be called in early 2009.

Pacific Highway

Dog Trap Road Intersection, Ourimbah

This \$15 million project was opened in July 2007. It provides two lanes in each direction along the Pacific Highway over a length of 300m and traffic control signals at the Dog Trap Road intersection. It also includes safe access for the neighbouring school and other land users via Dog Trap Road and an upgraded service road.

Glen Road to Burns Road, Ourimbah

A contract was awarded in March 2008 for next stage of the Pacific Highway widening between Glen Road and Burns Road, Ourimbah. Construction began in June 2008 and the project is expected to be open for traffic in mid 2010. The project is estimated to cost \$47 million.

Tuggerah to Wyong

This \$42 million upgrade involves widening the road from one lane to two lanes in each direction between Anzac Road and Johnson Road, with improved intersections, pedestrian facilities and a dedicated off-road cycleway. Stage one of the project, between Anzac Road and Mildon Road, was open to traffic in February 2008. A contract was awarded for construction of Stage two between Mildon Road and Johnson Road in February 2008. The full length is expected to be completed by late 2009.

Other rural projects

Lanyon Drive, Queanbeyan

Design work to extend the four-lane section of Lanyon Drive from Tomsitt Drive (NSW) to the Monaro Highway (ACT) is being managed by ACT Roads. The design is being finalised and a Review of Environmental Factors for the proposed work in NSW was determined in June 2008. Work will proceed in conjunction with construction in the ACT and is expected to start in 2009.

Nowra to Nerriga

Stage 1 of the reconstruction of Main Road No. 92 over a length of 24km was completed in June 2007. A contract for Stage 2 was awarded in July 2007 involving the reconstruction of a 9km section through Bulee Gap including a new bridge. This work is due for completion in 2009. Design work for Stage 3 has been completed and tenders will be invited in July 2008.

Alternative transport

Bus priority

Strategic bus corridors

The release of the NSW Government's Review of Bus Services in 2004 identified 43 strategic bus corridors across the Sydney metropolitan area, four in Newcastle, two in Wollongong and two on the Central Coast. The NSW Treasury allocated an additional \$90 million to the RTA's budget over three years (2005-06 to 2007-08) to implement bus priority measures on strategic bus corridors. The funding is in addition to the RTA's \$15 million annual bus priority allocation. A further \$100 million has been allocated over four years from 2008-09 under the Government's Urban Transport Statement initiatives to accelerate the delivery of the bus priority program.

Bus priority measures include bus lanes, transit lanes, priority traffic signals and bus bays along major bus corridors. Initial emphasis for the introduction of bus priority measures has been placed on the Sydney corridors, particularly those connecting the centres of Parramatta, Bankstown, Hurstville and Burwood.

By June 2008, 72 bus priority infrastructure projects had been completed across the Sydney strategic bus corridor network. Construction was continuing on a further 24 projects.

The Public Transport Information and Priority System (PTIPS) improves bus reliability by giving late running buses traffic signal priority. Bus management and service planning will be improved through better information on fleet performance. When this new GPS-based bus priority system is fully deployed it will be the largest implementation of its kind in the world. More than 4000 metropolitan buses operated by nine companies will be fitted with satellite tracking devices. More than 6500 bus routes, 100,000 timing points and 3500 traffic signal sites will be monitored to improve bus travel time reliability.

Broad scale deployment began in early 2008, with the initial focus on Sydney's northern beaches bus corridor.



Buses get a green light: Left to right – Team Leader Ken Collins, Work Supervisor Geoff Cam, RTA contractor, with Member for Parramatta Tanya Gadiel and Minister for Roads Eric Roozendaal at Parramatta.



Sydney Harbour Bridge bus lane.

Bus lane cameras

There are 28 bus lane cameras and 36 transitway cameras operating across Sydney.

Since bus lanes were introduced in the early 1990s, illegal use has had an impact on bus travel times and added to operating costs. A number of initiatives are in place to improve motorists' compliance with bus lane rules. These include colouring Sydney's bus lanes red and public education campaigns to increase road user awareness of how to use bus lanes.

Enforcement strategies have been developed using camera technology that is able to detect and automate an infringement process for illegal bus and transitway lane use.

In September 2005, the first 13 enforcement zones on bus lanes and transitway lanes began. A further nine bus lane enforcement camera sites were successfully commissioned in October 2006 within the Sydney central business district and the systems ISO 9001 certification was renewed.

In addition there are bus camera sites on the North West Transitway and the Liverpool to Parramatta Transitway.

North West Transitway Network

The North West Transitway Network comprises two new bus transitway links – Parramatta to Rouse Hill Regional Centre (17km with 20 stations) and Blacktown to Parklea (7km with 10 stations). The Parramatta to Rouse Hill Regional Centre link was completed and buses began services in March 2007. Construction of the Blacktown to Parklea link was completed in November 2007. The North West Transitway Network delivers an effective transport alternative for north-west Sydney with greater provision, frequency and reliability of bus services.

Bicycle riders

The RTA recognises that bicycle riding is an affordable, flexible, healthy and environmentally friendly form of transport. Promoting bicycle riding is an important part of the NSW Government's planning and transport strategy, particularly as it relates to reducing traffic congestion and improving the environment.

The RTA is committed to making comprehensive provision for bicycles in new major road infrastructure and maintenance work. During 2007-08 bicycle facilities were constructed at the following major road upgrades:

- Pacific Highway: On and off-road cycleways from Kennedy Drive to the Tweed Bypass interchange, Tweed Heads.
- Pacific Highway: Road shoulders along both sides of the Pacific Highway in association with the intersection upgrades at both Tomago Road and Old Punt Road, Tomago.
- North West Transitway: Shared use path along sections of Sunnholt Road, Blacktown to Old Windsor Road, Parklea.
- Lane Cove Tunnel: Separated paths along the southern side of Epping Road from Mowbray Road to Pacific Highway, Lane Cove.
- Bexley North to Cup and Saucer Creek: On-road cycleway along various roads from the M5 East cycleway at Lundy Street, Kingsgrove, to the Cup and Saucer Creek cycleway, Earlwood.
- Hume Highway: Road shoulders along both sides of the highway as part of the Towrang Road and Carrick Road intersection upgrades.
- Princes Highway: Road shoulders along both sides of the Princes Highway as part of the Pambula Bridge and approaches upgrade, Pambula.

The RTA bicycle program also funded the development and construction of other major cycleway projects during the 2007-08 financial year, including:

- Chatswood to North Sydney: Design development of a section of Chatswood to North Sydney route between Merrenburn Avenue, Naremburn and the Ridge Street Bridge, North Sydney.
- Princes Highway, Lake Tabourie: Construction of a shared use bridge over Tabourie Creek, along the eastern side of the existing bridge.
- Upgrade to bicycle-friendly drainage grates along Shellharbour Road, Windang Road, Primbee Deviation and King Street, from Shellharbour to Port Kembla.

In recognition that most cycling takes place on local roads, the RTA offered joint funding to NSW councils for the development and implementation of their local bicycle networks. During 2007-08, more than \$5.4 million was allocated on a matching basis to fund local cycleway work within 83 council areas. The program provided \$10.9 million for 119 local bicycle projects.

* The RTA's total funding of \$23.2 million towards the bicycle program helped to build more than 174km of cycleway, 103km of which were on-road and 71km off-road.



RTA support: Sydney Spring Cycle, October 2007.

The RTA continued to support community events that encouraged greater use of cycling. These included the City of Sydney Spring Cycle in October 2007, the MS Sydney to the Gong in November 2007 and the 2008 Great Escapade from Lithgow to Stockton, Newcastle, in March 2008. The City of Sydney Spring Cycle attracted more than 8100 participants.

For the annual NSW Bike Week in September 2007, the RTA provided seed funding to almost 50 bicycle events organised by local communities throughout the State. The list of these events was published on the RTA website. A marketing campaign to support NSW Bike Week was undertaken and included banners on overhead bridges in Sydney.

The RTA provided support to the National Ride to Work Day. RTA staff were encouraged to ride to work to aid a national effort by bicycle riders to reduce greenhouse emissions. Various initiatives such as 'ride to work day breakfasts' encouraged staff participation.

The RTA produced a number of publications to encourage cycling as an alternative mode of transport. These included *Safe Riding – A guide to safe cycling* and *Cycling to Work – Information for employers and employees*, a 'Powered by People Not Petrol' poster, and an update of the Sydney to Parramatta cycleways map.

Pedestrians

The RTA implemented a number of initiatives to improve pedestrian access and safety.

Facilities for pedestrians constructed in 2007-08 included:

- Pedestrian bridges: Detailed design development was undertaken for bridges at Parramatta Road, Haberfield, at Anzac Parade, Moore Park, and at Silverwater Road, Ermington. Concept design development is underway at Epping Road, Marsfield.
- Pedestrian crossings: A \$17 million program continued to upgrade pedestrian crossings on multi-lane State Government-controlled roads. Fifty-nine crossings will be upgraded as part of the program. By 30 June 2008, 31 of the 59 sites had been upgraded, with traffic signals installed at 25 sites. A further seven sites were under construction, with 13 sites in the design and community consultation stages.

- Pedestrian crossings and refuges.
- Additional audio-tactile push buttons to assist vision impaired pedestrians.
- Kerb ramps.
- Pedestrian fencing.

The RTA helped local councils to prepare Pedestrian Access and Mobility Plans (PAMPs) for integrated pedestrian networks. Eighty-six councils now have a PAMP, including nine completed during 2007-08.

The RTA continued to support councils to implement these plans which enhance safety, convenience and mobility in key areas of pedestrian movement, such as between public transport and other public places. During 2007-08 more than \$1.9 million was allocated to fund, on a matching basis, local pedestrian work in 69 council areas across NSW. The program funded 104 pedestrian projects at a combined cost of more than \$3.9 million.

The RTA continued to reinforce safe pedestrian behaviour amongst parents, teachers and children through ongoing support of Walk Safely to School Day, an initiative of the Pedestrian Council of Australia Limited. The RTA provided \$30,000 for this year's event in May 2008.



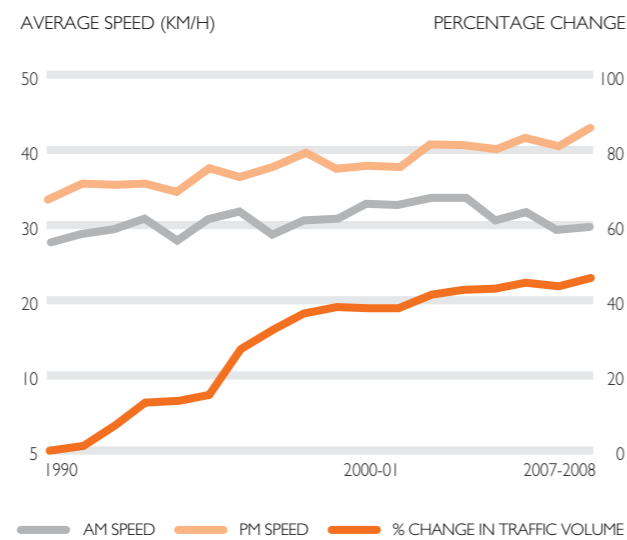
Pacific Highway near Cowan in Northern Sydney: The Pedestrian improvements narrowed the road into a single lane to force drivers to proceed with greater caution. It also improved the pedestrian footpath around the crossing.

Traffic

Speed and traffic volume trends

The trends in AM and PM peak speeds on the seven major routes to and from Sydney have remained broadly consistent despite the growth in traffic on these routes of more than 45 per cent since 1990.

FIGURE 4. SPEED AND TRAFFIC VOLUME TREND FOR SEVEN MAJOR ROUTES TO AND FROM SYDNEY



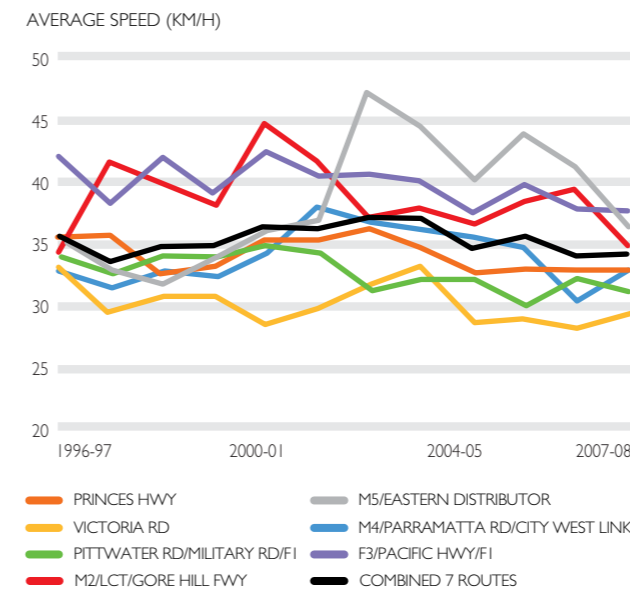
Between 2006-07 and 2007-08, travel speeds remained unchanged for the AM peak period and increased slightly for the PM peak period.

For the AM peak, the result was unchanged between 2006-07 and 2007-08 at 30km/h. The routes with a marked decrease in speed were the M5 corridor which changed from 40km/h to 34km/h and the M2/Lane Cove Tunnel/ Gore Hill Freeway corridor which changed from 38km/h to 31km/h. Although the introduction of the Lane Cove Tunnel was positive, the overall result for the M2 corridor was influenced by slower speeds west of Pennant Hills Road. The two lowest speed corridors in 2006-07 both improved, with the M4/City West Link up from 25km/h to 28km/h and Victoria Road slightly improved from 22km/h to 23km/h. Minor changes were recorded on the other corridors.

The patterns in overall speeds on the seven routes in the AM peak over the past 10 years is shown in Figure 5 on the following page.

For the PM peak, the rise between 2006-07 and 2007-08 was from 41km/h to 43km/h. The route with the highest change in speed was the M2/Lane Cove Tunnel/ Gore Hill Freeway corridor which increased from 47km/h to 61km/h due to the Lane Cove Tunnel and widening of the Gore Hill Freeway and westbound sections of the M2. The F3/Pacific Highway corridor also improved markedly from 45km/h to 52km/h. Small positive changes were recorded on most other corridors. The only exception was the M5 corridor which decreased slightly from 50km/h to 48km/h but remained among the top three fastest corridors for the PM peak.

FIGURE 5. AM PEAK SPEEDS



* From 2007-08, the Lane Cove Tunnel is part of the M2 corridor (formerly parallel sections including Epping Road)

Keeping the traffic flowing

The focus for 2007-08 was to maintain consistent travel times for motorists, particularly during peak hours by:

- Providing more efficient response to incidents to ensure good traffic flow.
- Reducing the causes of delay through improved operation of intersections, electronic tolling on motorways and improvements to the traffic signal control system.
- Helping road users navigate the road system more effectively.

Incidents and special events

The RTA's Transport Management Centre (TMC) is responsible for managing special events, responding to planned and unplanned incidents, and disseminating information to road users. As the central point for handling crashes, breakdowns, roadworks and spills, the TMC passes information to the public through the media, the RTA Contact Centre and Variable Message Signs, the RTA website and recorded telephone information.

The TMC is undertaking a program to enhance its capability and replace aging equipment, including updating the layout of the transport operations room.

The RTA is responsible for ensuring that traffic systems operate at peak performance. Activities include fine-tuning coordinated traffic signal systems and controlling other traffic operations such as:

- Deployment of traffic commanders to assume primary responsibility for traffic management around incidents on major roads in NSW.
- Deployment of a Traffic Emergency Patrol Service which routinely patrols major routes in Sydney and surrounding areas to identify incidents and assist when they occur.
- Operation of Variable Speed Limit Signs on all motorways so that speed limits may be adjusted in response to traffic conditions.
- Expansion and operation of 582 Variable Message Signs (VMS) across Sydney's metropolitan area and selected major routes across the State. There are 173 static VMS that are directly controlled by the TMC.
- Expansion and operation of the network of 1200 closed circuit television cameras that monitor roads across Sydney and selected major routes throughout the State.
- Operation, management and maintenance of the Sydney Harbour Bridge lane control system and other electronic and manual tidal flow systems throughout the greater Sydney area.
- Development of the Sydney Transport Evacuation Precinct Plan in conjunction with other government agencies to control traffic operations and pedestrian movements in the city of Sydney in the event of a disaster.

Incident management and traffic monitoring improvements


The RTA expanded the coverage of the incident management and traffic monitoring system, which improved the ability to monitor the network and respond to traffic incidents.

Improvements this year included:

- Installation of a new moveable median on the Cahill Expressway at the Sydney Harbour Tunnel northbound off-ramp.
- Installation of median crossovers on the F3 Freeway between Wahroonga and Ourimbah as part of the \$30 million program of work from 2007-08 to 2009-10.
- Installation of detour signposting for the Murray River bridges.
- Installation of two new variable message signs and closed circuit television cameras on the Hume Highway at Coolac.
- Installation and upgrade of closed circuit television cameras at various traffic control signal sites, including on the Pacific Highway, north of Grafton.
- Installation of detour signposting for the Pacific Highway between Twelve Mile Creek and Nabic.
- Installation of detour signposting for the Sydney-Newcastle Freeway between Morisset and Warnervale.
- Upgrading communications to traffic control signals at key locations on the Pacific Highway.

Traffic signal coordination

The essential task of moving traffic efficiently on the arterial road network is carried out by the Sydney Coordinated Adaptive Traffic System (SCATS). This world leading system designed by the RTA responds to traffic demand in real-time and coordinates traffic signal timings to ensure smooth traffic flows.

 SCATS continued to be a success, with an expanding international market. At 30 June 2008, SCATS was licensed to 28,291 intersections across 128 cities worldwide.

Annual upgrade arrangements are in place with all RTA-supported SCATS users in Australia, New Zealand and Singapore. These users have the latest version of the SCATS software, thus reducing the demand on RTA resources to support superceded versions. The annual update arrangements also provide a guaranteed annual income stream to offset SCATS development and support costs.

To research longer-term enhancements to SCATS capabilities, the RTA is continuing its collaborative research and development agreement with National ICT Australia Limited (NICTA). As NICTA is part funded by the Australian and State governments (Department of State and Regional Development), this collaboration with NICTA comes at no financial cost to the RTA, other than the resource costs for traffic systems staff working with NICTA researchers. The collaboration will pursue three areas of research:

- New vehicle detection systems including the potential for measuring traffic demand and queue length by analysing images captured using video cameras.
- New approaches to improve traffic signal control efficiency that take advantage of modern computing technology and new information processing techniques which include investigating the potential for enhancing the flexibility and efficiency of control algorithms for individual and groups of intersections.
- The potential of longer-term use of wireless mesh networks to replace conventional cable-based SCATS communication systems.

In addition, NICTA has been engaged to assist the TMC in investigating the development of a Design Support System that could aid decisions in real time traffic operations.

Intersection and corridor improvements

Locations in need of attention have been identified by monitoring congestion and travel times on key routes. Improvements made at these locations include construction of traffic signals, roundabouts and general intersection upgrades.

The Network Management (or Pinch Point) strategy is a NSW Government initiative aimed at improving traffic flows at key congestion points on Sydney's major arterial road corridors. This five year strategy was announced by the Premier in November 2006 in the Government's Urban Transport Statement, in which \$100 million was committed to improvements on the road network, starting in July 2007.

The Pinch Point strategy is targeting peak hour traffic 'hot spots' in 23 corridors in Sydney and will develop measures to provide reliable travel times.

Draft corridor strategies are being prepared for more than half of these routes, with planning for the remainder to be undertaken during 2008-09.



Pinch Point Strategy funding for Campbelltown aimed at improving traffic flow.

Projects already completed as part of the Pinch Point program include:

- Intersection reconstruction at Narellan Road and Blaxland Road/Gillchrist Drive, Campbelltown.
- Extension and duplication of right turn bay at Campbelltown Road and Blaxland Road, Campbelltown.

Other locations where intersection improvements have been completed include:

- Heathcote Road and Macarthur Drive, Holsworthy.
- Traffic control signals at Bank Street and Sydney Fish Markets, Pyrmont.
- Sturt Highway, East Wagga Wagga.
- Jingellic to Gilmore Road, and Greenhills Road, near Tumut, and Pound Creek Road, near Tumbarumba.
- Sydney-Wollongong Freeway and Old Mount Ousley Road, Mount Ousley.
- Illawarra Highway and Calderwood Road, Albion Park.
- Princes Highway and Illawarra Highway, Albion Park.
- The Entrance Road between Wyong and The Entrance.
- Hillsborough Road, Warners Bay.
- Mitchell Highway, Dunkeld Road and Evans Plains Road, near Bathurst.
- Castlereagh Highway and Spring Flat Road, Mudgee.
- Newell Highway, Burcher Road and Wamboyne Road, South Forbes, Croppa Creek Road, Moree, Killarney Street, Narrabri, and Gwydirville Road, Moree.
- Oxley Highway and Hastings River Drive, Port Macquarie.
- Wommin Bay Road and Phillip Street, Chinderah.

Traffic and transport modelling

- * The RTA has supervised the introduction of 'advanced micro simulation' – a vehicle-by-vehicle traffic modelling system designed to simulate scenarios such as changed traffic conditions.

Advanced micro simulation has been used to model the benefit of detection and management of roadside incidents, management of E-Toll tags and lane changing on the Sydney Harbour Bridge. Simulation models have also been developed for:

- The Sydney CBD.
- Spit and Military Roads corridor.
- Victoria Road upgrade.
- Sydney Airport and Port Botany.
- The Barangaroo development for Sydney Harbour Foreshore Authority.



Screen grab of Victoria Road simulation model.

Electronic toll collection

The RTA is responsible for the collection of cash and electronic tolls on the Sydney Harbour Bridge and the collection of electronic tolls for the Sydney Harbour Tunnel. The RTA also undertakes electronic tag distribution and customer account management, and assists with toll enforcement services for all NSW toll roads.

Electronic toll collection allows easier passage through tollbooths, easing congestion and improving traffic flow. It also has environmental benefits, because air and noise pollution are reduced when vehicles do not have to stop to pay a toll. These positive effects have increased with the introduction of E-only lanes.

The RTA played the leading role in introducing electronic tolling to NSW toll roads and continues to be a leader in supporting and maintaining interoperability between all toll roads in eastern Australia.

- * The result has been a rapid expansion in tag use, with the RTA issuing around 200,000 tags in 2007-08, bringing the total number of RTA tags in circulation to 676,000.

The popularity of electronic tolling increased during the year. RTA E-Toll tags were used more frequently, with about 19.6 million additional transactions on all toll roads compared with the previous 12 months.

Toll systems and products

The RTA uses a number of toll systems designed to improve processing efficiency. An outsourced Toll Compliance Management System also processes toll violations for private operators.

An internet-based capability was introduced to allow RTA tag customers to check their accounts and make changes, as well as enabling new customers to apply for a tag account online.

In July 2007, the E-Pass was introduced which will ultimately be interoperable with all toll roads in Sydney. E-Passes are suitable for customers who travel infrequently on toll roads.

- * In May 2008, the Short Term Tag was launched as a pilot scheme in six motor registries.

The Short Term Tag can be used to travel on all eastern Australian toll roads for periods of one week or more. The advantage of the Short Term Tag is that there is no deposit to pay, just a weekly fee of \$5. At June 2008 approximately 35 Short Term tags were sold per week.

Sydney Harbour Bridge and Tunnel

As owner and operator of the Sydney Harbour Bridge, the RTA has collected bridge tolls since 1932. The RTA has collected tolls for the Sydney Harbour Tunnel since 1992. Interoperable electronic tolling was installed on the bridge and tunnel in 2001. The Sydney Harbour Tunnel tolling collection went fully electronic in July 2007. In keeping with the NSW Government's objective to make the entire Sydney motorway network cash-free, adjustments were made to toll booths on the Sydney Harbour Bridge in May 2008. Further work is planned to promote fully electronic tolling on the bridge.

- * At June 2008, approximately 89 per cent of road users were using electronic tolling on harbour crossings during the morning peak with up to 22,000 transactions during this period each day.



Sydney Harbour Tunnel goes cashless.

Improved signposting

Signposting plays an important role in traffic management by ensuring motorists have clear guidance to help them navigate. The RTA undertook the following work in 2007-08 to improve:

- Signposting on the Warringah Freeway approach to Sydney Harbour Bridge.
- Tourist signposting in the Penrith area.
- Rural road signposting on the Olympic Highway between Albury and Young.
- Signposting on the Hume Highway between Narallem and Goulburn.
- Signposting on the Princes Highway, Wollongong, at Fowlers Road and Kanahooka Road.
- Signposting at Narromine, Gilgandra, Cowra and Warren.

Future challenges

Road development

- Participate with other NSW Government agencies in the implementation of the NSW State Plan, State Infrastructure Strategy, Metropolitan and Regional Strategies and the Urban Transport Statement initiatives.
- Work with the NSW Treasury to improve the Total Asset Management data requirements including project justification and prioritisation for inclusion in the State Infrastructure Strategy and the tightened 'gateway process' for project planning and procurement.
- Contribute to the Government's Metropolitan Strategy, emphasising the significance of urban centres across Sydney so that jobs are close to residences, reducing the need for trips to the CBD.
- Continue development of the Sydney Motorway network by investigating the M4 extension and the F3 Freeway to M2 Motorway link.
- Plan for support of Sydney's growth areas.
- Complete planning for a sustainable road network within Sydney (including road-based public transport facilities) for integration with north-west and south-west growth centres.
- Complete the upgrading of Cowpasture Road and Hoxton Park Road to four-lanes, and planning for the upgrade of Camden Valley Way to four lanes between Bernera Road and Narellan Road.
- Complete the Mamre Road M4 overpass and begin the construction of the Riverstone rail overpass.
- Progress the Great Western Highway upgrade in the Blue Mountains.
- Complete the 67km Southern Hume duplication work within budget by December 2009 and progress planning for the bypasses of Tarcutta, Holbrook and Woomargama.
- Complete the route selection for the Princes Highway from Gerringong to Bomaderry and begin project development.
- Progress the development of further Princes Highway upgrades, including four lanes through South Nowra to Jervis Bay Road and realignment at Victoria Creek and Dignams Creek.

- Plan and deliver accelerated upgrades on the Central Coast including the Central Coast Highway, the Pacific Highway and Avoca Drive.
- Continue to implement urban design corridor strategies to ensure a whole of government approach to land use and transport planning.

Alternative transport

- Deliver the next four-year \$100 million bus priority program.
- Continue broad scale deployment of PTIPS across the strategic bus corridors network.
- Continue the rollout of the bus priority enforcement systems.
- Develop a network of facilities to make cycling and walking more attractive.
- Ensure that multi-modal transport operations are improved as a result of major road projects, transport and integration.

Traffic management

- Continue implementing the Pinch Point program in Sydney.
- Implement traffic efficiency improvements in Penrith.
- Improve incident management and traveller information on Sydney-Newcastle Freeway.
- Continue to implement strategies to maximise use of electronic tolling.
- Move to cashless electronic tolling on the Sydney Harbour Bridge.
- Implement system to give customers control of their own accounts.
- Investigate and implement solutions for rental car companies and the fleet industry.



REVIEW OF OPERATIONS

Asset

Asset

The RTA works to maintain the road network and provide sustainable access for freight.

The road asset

The RTA manages about 18,000km of State roads, as well as nearly 3000km of Regional and local roads, in NSW. The RTA is also responsible for more than 5000 bridges and a range of other assets such as traffic signals and tunnels.

The task for the RTA is to maintain this enormous network at acceptable standards, in light of an increasing population and rise in the number of commuter and freight vehicles using roads. The network is crucial to communities across NSW – in many ways it is the social and economic lifeblood of the State. This chapter details the work the RTA is doing to maintain the system, and shows the performance levels reached in the past year.

NSW is also a major gateway to Australia for goods coming in and leaving our shores. For this reason, the road network's role in assisting freight transport is essential. This chapter details how freight access is being managed across the road network in the face of continuing strong growth in the freight task.

Access

Intelligent Access Program

* The world-leading Intelligent Access Program (IAP) became operational and available on 10 April 2008.

In a first for Australia, the program uses satellite-based tracking technology to help manage heavy vehicles on the road network. It was developed through Austroads in partnership with all Australian road agencies. The technology allows road agencies to remotely check whether heavy vehicles are complying with conditions such as mass limits.

The IAP is an outstanding example of how State and Territory governments, along with the Federal Government, have adopted a strategic vision and worked collaboratively on a truly national road transport reform. It is now being praised internationally as a leading intelligent transport system development. The launch represents 10 years of research, law reform and business development led through Austroads and Transport Certification Australia in conjunction with Australian road agencies.

The RTA was the first agency in Australia to make immediate use of the IAP, to support the expansion of Higher Mass Limits access. This satisfies a key part of the NSW Government's AusLink funding commitments with the Federal Government.



IAP helping manage heavy vehicles on the road network.

The significance of the IAP is that it is a national system, but can be customised for each State. Each vehicle needs only one 'black box' installed to operate anywhere, but each State can customise what the system delivers on their roads. The information generated by the IAP can be used to ensure compliance with approved routes.

Strict technical and regulatory safeguards have been introduced to limit tampering and other misconduct. The IAP will improve road safety, asset management and traffic efficiency – giving the RTA confidence to allow extended access to higher productivity vehicles in NSW.

Before the IAP became operational, registered operators could pre-enrol in the IAP as a transitional arrangement. At the end of June 2008, 3601 vehicles were pre-enrolled.

Trials of incremental pricing

Incremental pricing is a first step towards a potential reform in the method of financing the road network. Road costs are currently recovered through fuel tax, registration, licensing and permit charges.

Incremental pricing aims to promote improved productivity and more equitable charging for road use by direct recovery from heavy vehicle operators who are involved. Through incremental pricing, operators could potentially be allowed conditional permits to carry extra mass above the applicable load limit or travel on assessed and approved routes outside the standard restricted network. In exchange, operators would meet the cost of these concessions on the road network, giving them the choice of paying more to gain flexibility in mass limits and route.

In 2007-08 the RTA took a leadership role in implementing incremental pricing. Key actions included:

- Making the necessary legislative changes on 17 December 2007.
- Drafting regulations for the implementation of incremental pricing.
- Preparing for trials of incremental pricing with heavy vehicle operators.

Management of the Austroads Freight Program

In 2007, the RTA assumed responsibility for managing the Austroads Freight Program. The program is supported by a task force comprising senior staff from freight and heavy vehicle policy and operational areas of Austroads member organisations. The primary objective of the program is to enable improved road freight operations and to integrate these with other transport modes in the context of rapidly increasing freight demand. The program focuses on the research, development and completion of a number of projects in the following areas:

- Understanding the future freight task.
- Understanding community impacts and industry needs.
- Managing freight growth.
- Improving heavy vehicle access.

Austroads digital tachograph feasibility pilot

The RTA has been appointed lead agency in a national pilot study to assess the feasibility of using electronic systems to manage driving hour requirements. The study is a partnership between Austroads and the National Transport Commission, under the direction of Australian Transport Ministers.

The pilot will study a combination of digital tachographs and global positioning systems. It will provide an insight into the institutional and business arrangements required to support a potential future move to electronic fatigue systems in heavy vehicles in Australia.

During 2007-08 the initial design and scoping stages were completed. Key stakeholders from the Australian transport industry and technology providers have been engaged. The pilot is proposed to start in 2008-09.

Higher productivity vehicles

Higher Mass Limits

Higher Mass Limit (HML) vehicles can transport an increased payload capacity of between 10 and 13 per cent, providing a significant productivity gain to road transport operators. Accordingly, HML has the potential to reduce the total number of individual truck trips, reduce the cost of transporting goods and produce, and improve road safety and environmental outcomes. This initiative meets the NSW Government's obligations under the AusLink funding agreement with the Federal Government.

HML vehicles are only able to travel on approved roads within the HML zone. By June 2008, approximately 90 per cent (14,000km) of the State road network within the NSW HML access zone was approved for HML. More than 1100km of Regional and local roads which connect to the State road network have also been approved for HML.

To obtain HML access in NSW, registered operators must be enrolled under the IAP and obtain a permit to operate at HML on approved routes.

Quad axle pilot scheme

The RTA's pilot scheme for the operation of semi-trailers with quad axle groups has been introduced in accordance with the Council of Federal Governments (COAG) agreement on the general use of quad axle groups.

The pilot will assess the engineering and economic issues associated with the operation of quad axle groups at higher load limits than currently allowed within articulated freight vehicle configurations.

This pilot scheme will achieve productivity and road safety benefits. Allowing the operation of more productive quad axle vehicles is an important initiative that will boost the economy of NSW and reduce the number of trucks on our roads. Operating combinations with quad axle groups provides a payload increase of up to 28 per cent for a semi-trailer and has significant commercial benefits, for example, enabling the movement of fully laden shipping containers.

At the end of June 2008, seven permits had been issued to quad axle semi-trailers to operate under the pilot scheme.

Performance Based Standards

Performance Based Standards (PBS) focus on how well a heavy vehicle 'behaves' on the road, rather than how big and heavy (length and mass) it is, through a set of safety and infrastructure protection standards. This is a new approach to heavy vehicle regulation. The PBS approach gives the heavy vehicle industry additional opportunities for innovation, resulting in improved productivity, safer performance and the least possible impact on the road.

In December 2007, the NSW Government used the PBS to implement an initial business process for granting access to heavy vehicles to the NSW road network. Four PBS vehicles have been approved to operate on the network using these processes. The network is continually being assessed to classify it for use with various PBS vehicles.

Road Train Modernisation Program

B-Triple and AB-Triple heavy vehicle combinations up to 36.5m in length can operate in the western region of NSW under the NSW Government's Road Train Modernisation Program. B-Triples and AB-Triples provide a modern, safer, more productive option for freight transport. These vehicle combinations provide a number of benefits, including:

- Increased payload capacities in comparison to existing road train combinations.
- Significantly greater deck space for livestock carriers and general freight carriers (B-Triples).
- The ability to transport increased payloads of higher density loads such as minerals and grains (AB-Triples).

At the end of June 2008, 11 B-Triple and three AB-Triple permits had been issued to vehicles operating under this program.

Maintenance

Road management

The 184,118km NSW road network is a significant public asset, providing access across the State for commuters, travellers, business and freight.

The road system can be divided into four categories:

- 17,932km of RTA managed State roads including 4269km of AusLink Network, for which the Federal Government provides a funding contribution, and 161km of privately funded toll roads.
- 2946km of RTA managed Regional and local roads in the unincorporated area of NSW.
- 18,490km of council managed Regional Roads, which receive significant RTA grant funds.
- 144,750km of council managed local access roads, funded by local ratepayers and federal road assistance grants.

The RTA is also responsible for maintaining and operating:

- 5051 structures including bridges, major culverts and 22 tunnels.
- 3690 traffic signal sites.
- Nine vehicular ferries.

Other RTA assets associated with the road corridor include road shoulders, drains, rest areas, slopes, retaining walls, noise walls, traffic barriers and signs.



NSW road network.

The RTA faces considerable challenges in managing the maintenance and renewal of the NSW road and bridge network to ensure it is safe and reliable both now and into the future. This requires strong risk management, practical planning and robust analysis of the future usage and performance of the road network.

A major challenge for the RTA is the sustainable rebuilding of assets to ensure they continue to be serviceable. A key challenge is to use leading research and the latest technology to improve the RTA's capability to more accurately forecast the structural condition of road pavements and to get the longest life out of maintenance treatments.

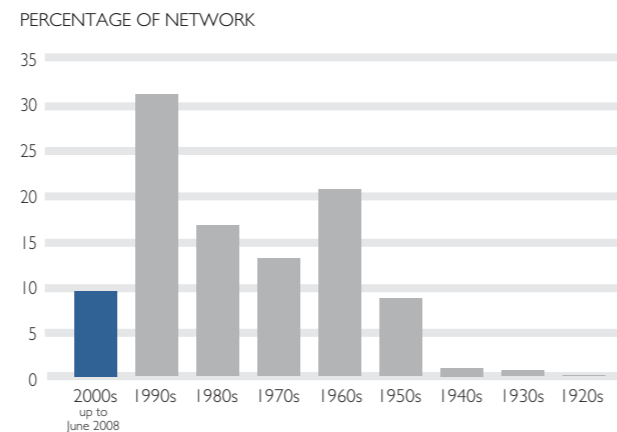
The Auditor-General's 2006 performance audit – *Condition of State Roads* – recognised that "the RTA has done well to recognise the importance of measuring structural condition and progressively improve its methods to do so". The report put forward 14 recommendations identifying areas of improvement for the RTA. In response the RTA has initiated 12 projects to address the recommendations. One of the recommendations was to report the progress of rebuilding efforts which has been included in this report as Figure 13. The Auditor-General's report can be found on The Audit Office of NSW website at www.audit.nsw.gov.au.

The RTA has made significant progress on the development of a pavement condition model to predict structural performance of its road and assets. Network wide strength testing has begun and will continue into next financial year, with continuing model refinement and calibration leading to the development of a final methodology.

The outcomes of the projects emanating from the Auditor-General's report will improve RTA's capability to:

- Assess overall future funding needs.
- Distribute available funds more effectively across the road network.
- Ensure consistent strategies are used across the State.
- Set appropriate condition targets and strategies for achieving the targets.

FIGURE 6. DISTRIBUTION OF CONSTRUCTION PERIOD FOR ALL STATE ROADS (INCLUDING AUSLINK) AS AT 30 JUNE 2008



Infrastructure condition

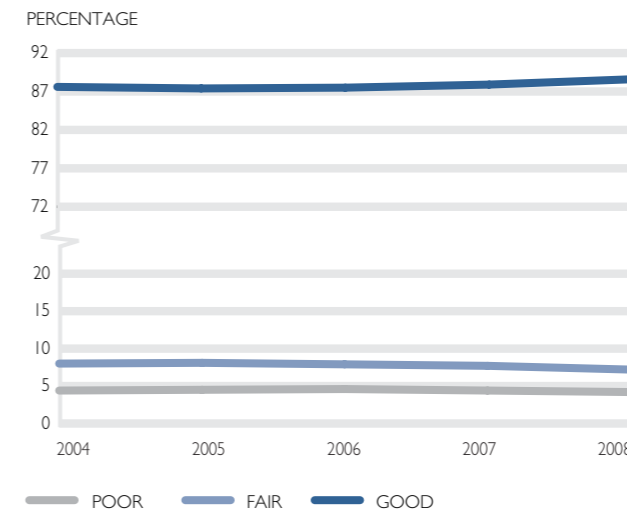
The RTA has historically used the following performance indicators to demonstrate the condition of the infrastructure it manages:

- Ride quality or road surface roughness.

Using vehicle mounted laser technology the ride quality or road surface is measured by the longitudinal profile of the road surface. This surface profile is then converted, through a computer modelling process, to the undulations that a standard vehicle would exhibit. The resulting road roughness measurements for each road section are then rated as 'poor', 'fair' or 'good'.
- Pavement durability.

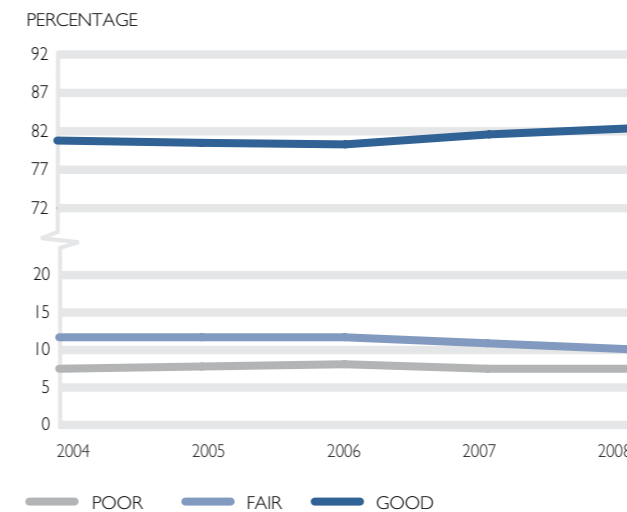
This is a measure of the amount of surface cracking on the road. The road surface plays an important role in providing both a safe running surface for traffic and a waterproofing layer to protect the underlying pavement from moisture that can seriously reduce the strength and durability of the road. Cracking is measured at highway speed by automated technology using the RTA's Roadcrack vehicle.

FIGURE 7. RIDE QUALITY ON STATE ROADS



The percentage of road surface roughness rated as 'good' on State roads and the AusLink National Network continues to improve, with major routes such as the Hume, Pacific, Newell, Great Western and Mitchell highways all indicating improved performance. In particular, the improvement of the Pacific Highway reflects the significant level of investment in that route over recent years.

FIGURE 8. RIDE QUALITY ON SYDNEY STATE ROADS



The 2006 NSW Auditor-General's report *Condition of State Roads* highlighted the ride quality on Sydney's roads as being below that of other capital cities and country roads. Over the past 12 months, the RTA has significantly increased the focus on the Sydney network and a substantial improvement in its condition is now evident, particularly in relation to pavement durability. This focus will continue in future years and further improvements are expected.

FIGURE 9. ROAD SURFACE ROUGHNESS % GOOD ON SELECTED STATE ROADS

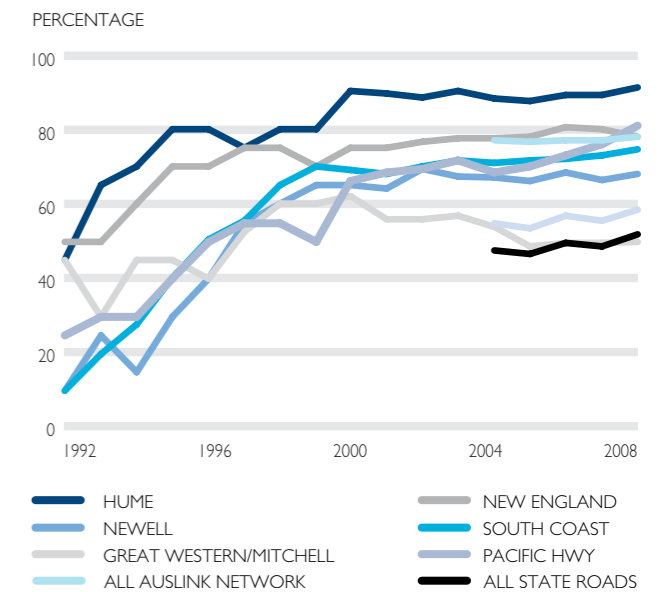


FIGURE 10. PAVEMENT DURABILITY – ALL STATE ROADS

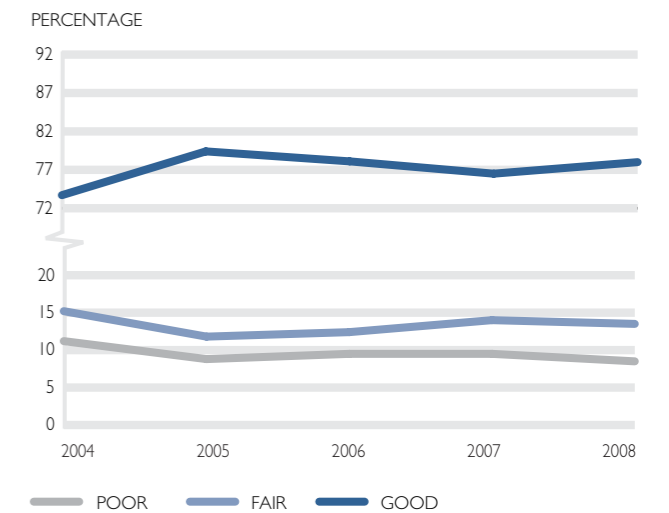


FIGURE 11. PAVEMENT DURABILITY – URBAN STATE ROADS

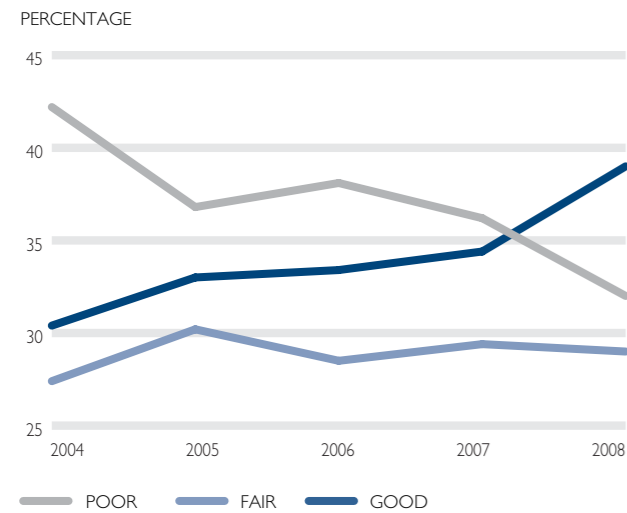
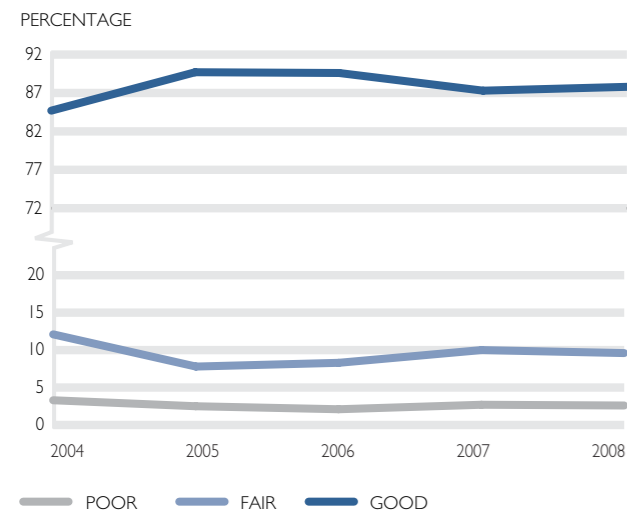
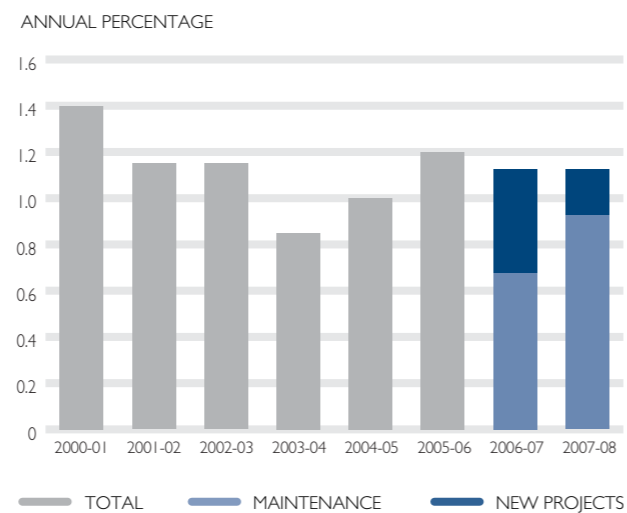


FIGURE 12. PAVEMENT DURABILITY – RURAL STATE ROADS



Pavement durability on the rural road network has been relatively stable over the past five years, and shows significantly less poor-rated pavement than urban roads. The RTA has previously given priority to the weaker and more water sensitive rural granular pavements ahead of the urban asphalt roads made from manufactured materials. These are more resilient to prolonged rainfall than natural gravel roads. Urban roads are also typically lower speed, and therefore represent less of a road safety risk than rural high speed roads. Following the recommendations of the Auditor-General, additional attention is being given to the urban network without diminishing the maintenance effort on the rural network.

FIGURE 13. REBUILDING OF ROAD PAVEMENTS



The contribution of rebuilding activity from new projects is dependent on the nature of projects undertaken in any year, and whether they involve rebuilding of existing pavement, or provision of new infrastructure. Increased funding was applied to pavement rehabilitation and reconstruction activities under maintenance in 2007-08. The breakdown of rebuilding into maintenance and new projects is only shown in latter years where more reliable data is available.

Maintenance program

The Infrastructure Maintenance Program establishes priorities for maintenance work and replacement activities on a risk basis to support ongoing safe and reliable travel on State roads. Roads are one of the largest public assets managed by government. Carefully planned maintenance programs are required to protect the original investment in these assets to ensure their service into the future. Affordable service levels are prioritised across the various components of the road infrastructure and programs developed in line with corporate maintenance program guidelines. Routine maintenance work is delivered through a mixture of external council contracts and in-house providers. Maintenance specifications set consistent minimum levels of services, and specify requirements for identifying and rectifying defects, procedures and management systems for worker safety, traffic control and safety, environmental protection and work quality.

Achievements during 2007-08 included delivery of the \$986 million Infrastructure Maintenance Program which represented an increase of \$116 million compared to 2006-07. Significant program outcomes included:

- Construction of 11 replacement bridges.
- 2.44 million square metres of asphalt resurfacing (5.8 per cent of the asphalt surfaced network).
- 13.5 million square metres of sprayed bitumen resurfacing (10.8 per cent of the sealed network).
- 1.52 million square metres of reconstructed pavements (0.8 per cent of the total network).



Recently repainted historic iron arch bridge over Bungambrawatha Creek (built in 1886) on Riverina Highway.

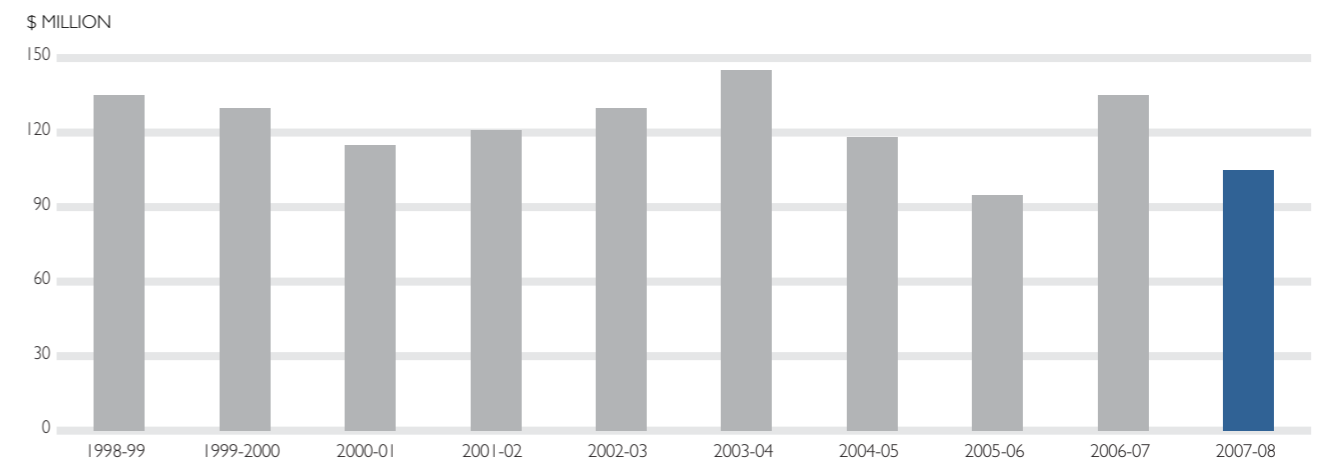
The RTA realigned Douglas Park Twin Bridges following misalignment caused by longwall mining in the late 1990s. The management of technical solutions and implementation of the realignment within a restricted time frame and to estimated costs was a significant achievement.

* The Douglas Park Twin Bridges project is one of two finalists in the project management category of the Institute of Engineers excellence awards, to be announced in September 2008. This project was principally funded by the Mine Subsidence Board.

Rebuilding Country Roads Program

The NSW Government's Rebuilding Country Roads Program involves a commitment for the RTA to spend at least \$100 million a year for 10 years on renewing roads and bridges to the latest standards. Over the past nine years, the RTA has spent an average of \$122.9 million per annum on this program. Expenditure for 2007-08 was \$107.2 million.

FIGURE 14. REBUILDING COUNTRY ROADS PROGRAM EXPENDITURE



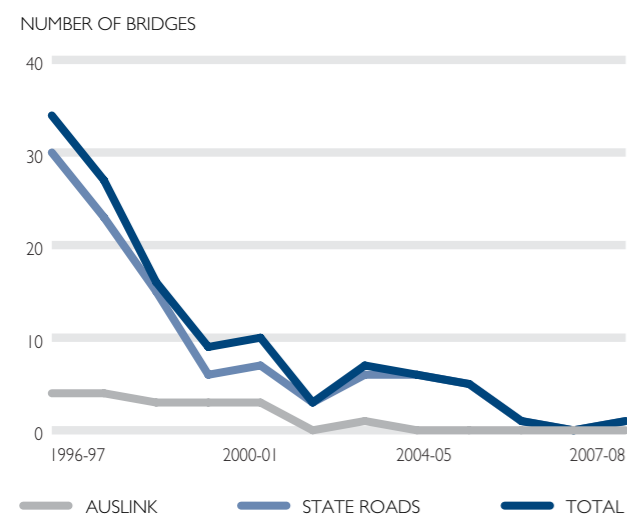
Asset Renewal Program

Since 2001, all of the funds from a series of increased RTA charges have been directed into maintenance of the RTA's arterial roads and bridges. The majority has been spent on rural and regional arterial roads and, in 2007-08, this expenditure was \$77.8 million.

Major work recently completed under the Asset Renewal Program includes:

- Reconstruction between Neath and Abermain, near Cessnock.
- Reconstruction near Ando and a new bridge over Native Dog Creek north of Bombala on the Monaro Highway.
- Reconstruction of Elizabeth Drive from Badger's Creek Road to Luddenham Road.
- Reconstruction of Francis Street/Railway Street, Rooty Hill.
- Replacement of the 80-year-old ferry at Wiseman's Ferry.
- New bridge over Croobyar Creek, Princes Highway, near Milton.
- Widening of bridges over Pokolbin Creek and Middle Creek in the Hunter Valley.
- Reconstruction and widening at various locations, north of Lithgow on the Castlereagh Highway.
- New bridge over Grubbenbun Creek, south west of Bathurst on the Mid Western Highway.
- New bridge over Swan Brook Creek, Gwydir Highway west of Glen Innes.
- Replacement of old pedestrian overbridge, Parramatta Road, near Auburn Primary School.

FIGURE 15. NUMBER OF BRIDGES ON STATE ROADS AND AUSLINK ROADS WITH CONSTRAINTS ON USERS



These constraints may include:

- Bridges with load or speed limits.
- Bridges closed or washed away.
- Bridges with a temporary support system in place.

Natural disaster repairs



Hunter floods.

Disasters cause severe and widespread hardship for the community of NSW. The NSW Government provides significant financial assistance to councils to repair roads damaged by declared natural disasters.

In 2007-08, the RTA managed \$40.5 million of NSW Government funds to repair damage from declared storms, flooding and bushfires. Two major events dominated this program for 2007-08: in June 2007 major flooding occurred in the Central Coast and Hunter areas, while December 2007 saw major storms and flooding in the west and south-west of the State.

Slope stability

In 2007-08 the RTA continued to manage road slopes under a risk management approach. More than 40 slopes were remediated or repaired, including the start of work on Mulligans Bluff on the Gwydir Highway where the highway has been closed to one lane for many years. The project will reinstate two-lane traffic when completed in 2009.

Other highlights included:

- Remediation of six slopes at Brogo on the Princes Highway.
- Horizontal drainage work in Kosciusko National Park.
- Installation of real time monitoring on Mount Ousley to monitor slope movements and water table level.

- Reconstruction of a retaining wall on Bulli Pass on the Princes Highway.
- Innovative soil nailing was utilised on Cambewarra Mountain (Cambewarra Road) to repair a stone packed wall without having to demolish it.
- Ongoing drainage works were also carried out at Thredbo.

Slope work was completed at the following locations:

- Near Windermere Dam on Castlereagh Highway.
- Three slopes on the Pacific Highway, two near Sydney and one at Cooperabung.



Maintenance engineer from Southern region repairing road damage at Bulli Pass.

Culverts

During the year, the RTA improved management processes for these significant drainage assets. A new culvert rating and spatial location process was developed, together with a training package for raters. A risk assessment process to support the prioritisation of repair work is under development. The rating process for this vast inventory is expected to take several years to complete.

Improved information for local government

The management of the road network is shared between the NSW Government (through the RTA) for State roads and local councils for Regional and local roads. Details of the working arrangements are set out in a manual – *RTA arrangements with councils for road management* – known as the 'Yellow Book'. The manual was published in 1993 and outlines the administrative, financial and legal frameworks relating to a range of programs, such as Regional Road block grants and natural disasters.

In 2007-08 the RTA began to update the manual with the objective of publishing the updated manual online. The aim is to ensure that the RTA and local government can access clear and up-to-date guidelines for use in the shared management of the road network.

Timber Bridge Partnership

On 28 October 2006 the Premier announced that the NSW Government would invest \$60 million in a three-year Timber Bridge Partnership for councils to upgrade their timber bridges on Regional Roads, with funding provided on a 50:50 matching basis.

Under the program, 157 of a total of 285 Regional Road timber bridges have been approved for funding to date. At 30 June 2008, 20 bridges had been completed under the partnership, including:

- Five bridges over Lignum Creek on the Barham to Maude Road.
- Peel River Bridge at Nundle.
- Gloucester River Bridge.
- Genaren Creek on the Peak Hill to Tullamore Road.
- Black Gully Creek, near Garah.

Regional Roads funding

The RTA offers full or partial funding to councils under a range of programs. The funding programs include Timber Bridge Partnership, the Regional Roads Block Grant, REPAIR program, black spot treatments, road safety audits and roadside facilities and rest areas.

Future challenges

Heavy vehicle access

- Continue to implement the Intelligent Access Program to facilitate better use of the network by matching the right truck to the right road.
- Support the Council of Federal Government's reforms to enhance the efficiency, productivity and sustainability of road and rail freight infrastructure through the reform of heavy vehicle road user charges, and contribute to the national debate on user access.
- Continue to promote the use of innovative, higher productivity vehicles to improve freight movement.

Maintenance

The future challenges facing the RTA in managing the NSW road network need to be considered within the context of population growth, economic prosperity and environmental sustainability. The priorities of the NSW State Plan and the findings of the NSW Auditor-General's report, *Condition of State Roads* are significant drivers of RTA performance in this area.

To meet these challenges the RTA will:

- Continue to divert funds where possible to critical maintenance activities.
- Continue to strengthen older RTA bridges and to facilitate wider use of higher productivity vehicles across the network.
- Improve capability to model the impacts of increasing freight movements on the road network.
- Continue to consult with local government, internal providers and industry on infrastructure planning.
- Continue to implement the recommendations of the NSW Auditor-General's report.
- Increase the level of asphalt resurfacing and pavement rebuilding.
- Implement the State Infrastructure Strategy.
- Finalise and implement the RTA's 10 year Infrastructure Maintenance Plan.
- Revise and implement consistent service and technical standards.
- Enhance the planning of maintenance through the development of a comprehensive pavement management system.
- Enhance the project delivery of maintenance and minor work through the 'Alliance model' with internal providers and road maintenance contracts with local councils.
- Maintain and improve the performance of the road network within available funding.



REVIEW OF OPERATIONS

Safety

Safety

The RTA works to maximise the safety of the road environment, vehicles and road user behaviour.

The RTA and road safety

NSW has again broken records with further reductions in the road toll. In 2007 the total number of deaths (435) was the lowest since 1945. The recent downward trend in the NSW road toll is not explained by broad factors such as safer vehicles or increased fuel prices. These factors apply to all States of Australia, yet while the toll in NSW has been going down the toll in the rest of Australia has increased.

The RTA has introduced the 'Safe System Partnership' approach to road safety, used effectively in Europe, which recognises that human error is inevitable and requires roads and roadside environments that are forgiving of driver error.

Road safety is a key priority for the RTA and it is being 'mainstreamed' throughout the organisation. Under the new approach all managers are accountable for road safety outcomes, relevant to their area of responsibility. Road safety performance indicators and road safety impact statements guide investment decisions. Road safety impact statements are being completed to ensure programs and projects meet desired road safety outcomes. The Executive Road Safety Management Committee was established to oversee this coordinated approach to road safety. Formation of the NSW Centre for Road Safety symbolises this refocusing of road safety.

This chapter summarises the measures the RTA has taken in the past year to improve the safety of roads, vehicles and users. It also provides data about road fatalities in the past year, trends in road fatalities and the key factors behind the figures.

Section cover image: Photo taken by RTA photographer Geoff Ward of Dimitar Petrovski, System Maintenance Technician, changing pedestrian traffic lights.

Fatalities

There were 435 fatalities on NSW roads in 2007 – a 12 per cent reduction from 2006 when 496 people died on our roads.

* This result is the lowest annual NSW road toll since 1945, when the population was less than half that of 2007 and the number of vehicles was less than a tenth of current numbers.

The NSW fatality rate per 100,000 population in 2007 was 6.3, the lowest figure since records began in 1908. This also compares favourably with the rate for the whole of Australia, which was 7.7 fatalities per 100,000 population in 2007. International comparisons show NSW ahead of other Organisation for Economic Co-operation and Development countries such as France (7.7 fatalities per 100,000 population), Italy (9.3), New Zealand (9.4) and the United States (14.2), but still behind the leaders Netherlands (4.5), Sweden (4.9) and the United Kingdom (5.4).

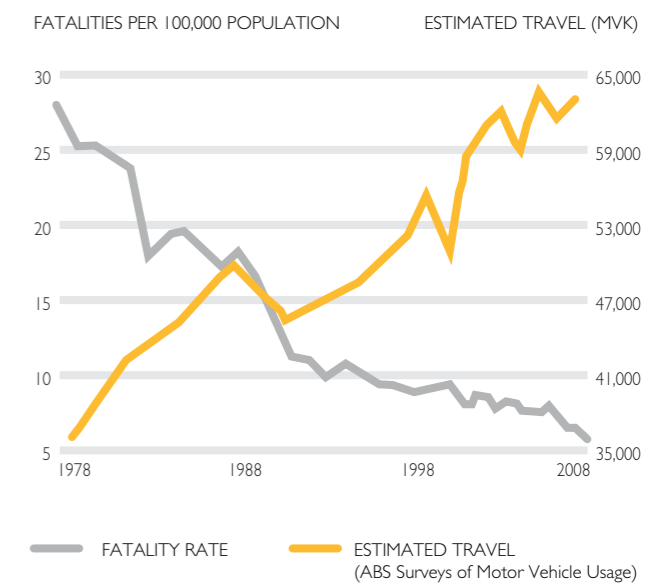
The NSW State Plan states "we will reduce road fatalities to 0.7 per 100 million vehicle kilometres travelled by 2016". Australian Bureau of Statistics travel estimates for 2007 indicate that the fatality rate per 100 million vehicle kilometres in NSW in 2007 was 0.69.

Factors in crashes

Analysis of crashes for the calendar year ending 31 December 2007 revealed that:

- Speeding was a factor in around 32 per cent of fatalities.
- At least 21 per cent of fatalities were the result of a crash involving a driver or rider with a blood alcohol level above the legal limit.
- At least 16 per cent of people killed in motor vehicles were not wearing available restraints.
- Driver fatigue contributed to about 20 per cent of fatalities.
- At least five per cent of motorcyclists killed were not wearing helmets. Motorcyclists accounted for 14 per cent of fatalities.

FIGURE 16. TRENDS FOR FATALITIES PER 100,000 POPULATION AND MOTOR VEHICLE TRAVEL SINCE 1978



NSW Centre for Road Safety

The NSW Centre for Road Safety became fully operational on 1 January 2008. It is working to become a world-class road safety centre for policy development, high-level research, advice and delivery of behavioural change strategies. The centre is overseeing the 'mainstreaming' of road safety into all RTA programs and developing plans to continue to address the road toll.



John Wall, A/Principal Policy Analyst Road Safety Technology, with Intelligent Speed Adaptation trial car.

The centre consists of four specialist areas – safer vehicles, safer people, safer roads and road safety technology. These 'four pillars' of road safety each represents a key component of the RTA Safe System Partnership approach to road safety. This approach is based on the premise that the road, vehicles and the road environment must be designed and maintained with the recognition that motorists do make mistakes. It challenges road designers, vehicle manufacturers, network development, management decision makers and vehicle regulation managers to achieve a balance in the key factors on the road network.

This requires the following:

- Designing, constructing and improving roads and roadsides to reduce the risk of crashes.
- Designing, constructing, maintaining and regulating a road system so that the impact and forces on the human body generated by crashes are less than those resulting in fatality.
- Regulating or encouraging development and adoption of high quality active and passive safety systems in vehicles.
- Speed management, in view of the risks in any part of the system.
- Educating road users and encouraging road users to obey the road rules.
- Targeting enforcement and penalties to deter road users from breaking the rules.
- Ensuring a program of targeted research to strengthen our knowledge and understanding of the interactions between different components of the safe system and the most cost-effective interventions for identified target situations.
- Promoting shifts in community attitudes and behaviours towards a number of factors including speeding and impaired driving.

The NSW Centre for Road Safety continued to implement recommendations from the *RTA Road Safety Challenge*, which was released by the Chief Executive in January 2007. The *RTA Road Safety Challenge* outlined the organisational arrangements needed to change the delivery of road safety engineering programs in the RTA, and initiatives to enable the authority to respond to its role as lead agency for the NSW Government's priority on road safety. These recommendations included:

- Development of road safety key performance indicators across all areas of the organisation.
- Preparation of road safety impact statements.
- Region-wide crash analysis studies.
- Road safety reviews of the Great Western, Mitchell and Mid Western highways.
- Ensuring systems are in place to 'mainstream' road safety across the RTA.
- Providing road safety learning and education packages to online services.

Road users

New drivers

Young driver initiatives

Despite improvements, young drivers continue to be over-represented in fatal crashes. Young drivers aged 17 to 25 years represent 13 per cent of all licensed drivers. In 2006-07 they were involved in 29 per cent of all fatal crashes. A number of initiatives were introduced on 1 July 2007 to improve the safety of young drivers, including:

- Licence suspension for any speeding offence for P1 drivers and provisional riders.
- A ban on all mobile phone use for learner and P1 drivers, and provisional riders.
- Peer passenger restrictions for P1 drivers between 11pm and 5am.
- Changes to the display of L and P plates on vehicles.
- Increased licence terms and supervised driving hours for learner drivers.

A comprehensive communication strategy was implemented to notify young drivers of these changes, with information available on the RTA website, through the RTA Contact Centre, motor registries and advertisements in metropolitan media. The RTA also promoted the laws through a range of education programs with schools and TAFE, as well as through its sponsorship of the Speed Blitz Blues, Rotary Youth Driver Awareness presentations and the Youthsafe Injury Prevention Program.



Young driver initiatives were introduced in July 2007.

✳ Preliminary crash data shows a 44 per cent decline in fatalities from crashes involving speeding P1 drivers in 2007-08 compared to 2006-07.

New driving test

Young drivers are over-represented in crashes, particularly in the first six months of solo driving. This is due to inexperience and an inability to recognise and respond to potential traffic hazards. A new Class C (car) test was introduced in 2007 with a greater focus on assessing the applicant's hazard perception skills and making use of more demanding traffic situations.

The new driving test consists of five key assessments: speed management, road positioning, decision-making, hazard response and vehicle control. Speed, position and decision components continuously assess the applicant's ability to drive to the conditions while using low risk driving techniques such as keeping a safe space, speed and gap selection. Hazard response components measure the applicant's ability to identify and take action in response to random events that could result in a crash (such as a pedestrian who may run across the road after standing between parked cars).

The hazard response assessment criteria has been designed to be directly linked to novice driver crash types, including same direction, off-path, adjacent and opposite direction crashes. These crash types account for almost 90 per cent of provisional P1 crashes.

To incorporate these assessments into the test, the driving time has been increased by 15 minutes to a total of 45 minutes. The new driving test was piloted for one month on the NSW Central Coast in mid 2007. Following the success of the pilot, the test was introduced in the rest of the State by December 2007.

A significant communication strategy ensured customers and the driving instruction industry were aware of the new test standards and requirements. This included a mail-out to eligible learner drivers in the pilot area, a mail-out to all driving instructors, posters in all motor registries, information on the RTA website and development of a new publication for learner drivers.

Novice driver pilot program

The RTA is a partner in a \$10 million pilot program for novice driver education. Designed to reduce the high number of young deaths on NSW roads, the trial is a joint effort between the RTA, the Federal Government, the Victorian Government, the Victorian Transport Accident Commission, the Federal Chamber of Automotive Industries, NRMA Insurance and the Royal Automotive Club of Victoria.

The trial is one of the largest and most rigorous studies of novice driver education ever undertaken. It will provide provisional drivers with an understanding of their limitations and how they can reduce the risks they face on the road. The direction of the program was set at a forum attended by leading Australian and overseas experts.

Participating provisional drivers will undertake training, including facilitated group discussions, and one-on-one in-vehicle coaching sessions, focusing on hazard perception and risk avoidance.

The trial will involve at least 14,000 provisional drivers in NSW; 7000 will take part in the program and 7000 will act as a comparison group. The involvement of the two groups in any crashes will be compared over a 12 month period to assess the effects of the program. A similar trial will take place in Victoria.

If proven effective, consideration will be given to the program becoming a national scheme. The trial is expected to be completed and evaluated by 2010.

Child road safety

In 2007-08, the RTA implemented a NSW Government plan to improve child road safety. The plan, announced in 2006, included flashing school zone speed alert signs, fixed speed cameras in school zones, a drop-off and pick-up initiative and increased fines and demerit points for offences in school zones.

The 2007 evaluation of the 40km/h flashing light trial confirmed that the technology:

- Achieves a major road safety benefit by lowering traffic speed in school zones.
- Significantly improves compliance, increasing the proportion of drivers entering the school zones at or below 40km/h to 60 per cent, compared to 40 per cent before the installation of the lights.
- Is reliable, with the electronic warning systems achieving a 98.2 per cent reliability rating (the flashing lights are equipped with back-to-base monitoring).

In September 2007 the Minister for Roads announced that another 400 flashing lights would be installed over four years, with 100 flashing school zone signs installed per year. The first 50 of these signs were installed in 2007-08.

School zone speed cameras

In May 2006, the commitment was made to install 50 fixed speed cameras as part of the Safety Around Schools initiative. To date, 39 have been installed in 25 school zone locations. The remaining 11 will be progressively installed and operational by early 2009. This brings the number of cameras in school zones to 53 cameras operating in 38 school zone locations.



School zone speed camera installed at Holy Cross College, Victoria Road, Ryde.

Early childhood road safety education

The NSW Centre for Road Safety has an Early Childhood Road Safety Education Program aimed at children under the age of five, early childhood educators and families.



The program developed a CD and song book called *Road Safety Songs and Rhymes for Young Children*, designed to teach young children about road safety using well-known songs and nursery rhymes with a road safety twist. The

CD contains 16 imaginative and entertaining songs for early childhood staff and families to sing with young children. It is being distributed to more than 2800 licensed children's services in NSW. A professional development program has begun to educate childcare staff about how to use the CD to make road safety an integral part of daily dialogue with young children.

Road safety education in schools

The NSW Centre for Road Safety's School Road Safety Education Program (kindergarten to year 12) supports the delivery of road safety education through mandatory components of the school curriculum in government, Catholic and independent schools. The RTA funds road safety educational support to schools, professional development activities, and policy advice to assist teachers to deliver road safety education.

The RTA funded the English Teachers Association to conduct a State-wide professional development program for English teachers on the RTA Stage 6 English resource *In the Driver's Seat*.

To encourage the active involvement of parents in road safety the RTA developed the *Move Ahead with Street Sense Kindergarten Orientation Day* road safety presentation kit. The kit can be used by school communities to facilitate road safety discussions with parents.

Drink and drug driving

Drug driving

Roadside drug testing has been in operation in NSW since 31 May 2007. The legislation allows roadside drug testing using oral fluid samples to test for the presence of three illicit drugs – cannabis, ecstasy and speed. Since drug testing began, the NSW Police Force has conducted 83 operations resulting in 13,195 roadside drug tests. Of these, 319 drivers tested positive to one or more of the illicit drugs. Overall, one in 43 drivers tested positive to drugs. Two additional vehicles have been purchased to provide a greater capacity for the Police to undertake the tests.

Sober driver program

This nine-week program helps participants understand the effects of drink driving on themselves and the community and aims to reduce reoffending. Participation is by referral from a Magistrate or a probation and/or parole officer. The program is funded by the RTA and delivered by the Probation and Parole Service of the Department of Corrective Services. A total of 4963 participants have completed the program.

Alcohol interlock program

An alcohol interlock is an electronic device that tests a driver's breath and prevents a motor vehicle from being started if the driver's concentration of alcohol exceeds the pre-set limit of 0.02.

The Alcohol Interlock Program is available for courts as an option in sentencing drivers convicted of certain serious drink driving offences. More than 1190 interlock licences have been issued and 419 participants have successfully completed the program.

Older drivers

The number of NSW drivers over the age of 85 will more than double over the next 15 years. There are around 23,000 drivers over the age of 85 in NSW but that figure is expected to increase to more than 52,000 by 2023, according to Australian Bureau of Statistics.

In April 2008, reforms to the licensing system for older drivers were announced. These included:

- An annual medical check-up from the age of 75 to aid the early identification of issues such as deteriorating eyesight and dementia.
- Redesigning the over-85 driving test, making it more practical, with testing every two years.
- Introduction of a voluntary driver assessment scheme through accredited driver training organisations like the NRMA and the Australian Driver Trainers Association.
- Maintaining modified licence options for over-85 drivers.

The Minister for Roads also announced the establishment of an Older Drivers Implementation Panel to introduce the reforms. The panel included representatives from the RTA, NSW Police Force, Council on the Ageing, NRMA, Australian Driver Trainers Association and the Australian Medical Association. The panel has made recommendations to the Minister on a new RTA-delivered driving test, standards for accreditation of external assessors and criteria for a 'modified' licence.

Biennial testing will be introduced from July 2008 and the other reforms are expected to be implemented in early 2009.

Road safety marketing campaigns

Campaigns

Public education campaigns are a key tool to raise community awareness of important road safety issues and encourage behavioural change.

'Speeding. No one thinks big of you.'



The 'Speeding. No one thinks big of you campaign' continued to be a key advertising campaign aimed at young drivers throughout 2007-08. The campaign centres on changing behaviours and shifting attitudes about speeding, particularly among males aged 17 to 25 years.

Campaign research undertaken by an independent research company (Taylor Nelson Sofres) has revealed it as the most successful road safety campaign ever undertaken by the RTA, achieving a 97 per cent awareness among young male drivers and a 95 per cent awareness among the wider community. The research also found that it is encouraging 78 per cent of male drivers to obey the speed limit. This highlights the campaign's commitment to making speeding socially unacceptable and 'uncool' amongst the target audience, all while empowering the community to play a role in addressing the issue.

Motorcycle safety

A new motorcycle cornering campaign was launched in October 2007 that outlined two possible paths a rider could take when approaching a corner and illustrated how the wrong set up on approach could potentially lead to the rider crashing. This campaign prompts riders to think about the technical issues associated with riding corners safely. Media elements included direct mail, print, outdoor and convenience advertising.



Drink driving



The 'Paranoia' mobile random breath test (RBT) campaign challenges the belief that drink drive enforcement is predictable by raising awareness of the unpredictability of mobile RBT. The campaign brings to life the sense of paranoia felt by drink drivers, encapsulated in the campaign line – 'You won't know where. You won't know when.'

Television uses an emotive 'hook' to capture the target audience, while the other elements of the campaign provide rational information about the police presence on the roads.

Driver fatigue

The Driver Reviver Program encourages drivers, particularly on longer trips over holiday weekends, to take a rest break. The RTA has continued to support and improve the Driver Reviver Program with guidance on road safety at Driver Reviver sites and promotion through advertising, variable message signs and comprehensive information on the RTA website.

A radio campaign that adopts a 'passenger empowerment' strategy is used to encourage drivers to 'Stop. Revive. Survive'. The campaign involves three 30-second radio spots, 'Nagging', 'Son' and 'Matt', that cover a variety of demographics. Each tells an emotional story from a passenger's point of view – how they should have encouraged the driver to take a break which would have saved their life.

Driver fatigue advertising is mainly targeted at holiday periods where there is a high traffic volume and when people are known to drive long distances or outside normal driving hours.

School safety

A campaign using live-read radio spots was used to remind drivers to keep within the 40km/h speed limit in school zones. The live-read announcements were scheduled for morning and afternoon periods when the 40km/h speed limit applies.

Holiday campaigns

The double demerits campaign is scheduled for every holiday period when double demerits are gazetted. The most effective short-term road safety public education strategies combine high levels of police enforcement with high levels of advertising. The TV concept uses the idea that an unbuckled seatbelt can 'chew' your licence in half. Voice overs and sound effects build on this idea to communicate that during the double demerits period some offences could cost you your licence.

Rail level crossing motorist awareness campaign

Investigations of crashes at rail level crossings have reported that the failure of motorists to abide by the traffic control measures at the crossing was the primary factor – given the operational limitations of trains, the onus to avoid the collision is primarily on motorists. Every year since 2002, the 'Stop or get stopped in your tracks' motorist awareness campaign has been implemented to raise awareness of rail level crossings.

This campaign is managed by the RTA on behalf of the Level Crossing Strategy Council whose membership includes RailCorp, Rail Infrastructure Corporation and Australian Rail Track Corporation.

SpeedBlitz Blues sponsorship

For the sixth year, the RTA was the major sponsor of the NSW men's cricket team, the SpeedBlitz Blues. The sponsorship is one component of the RTA's marketing campaign to change the attitudes of 17-26 year olds to speeding by making it socially unacceptable.

On-ground marketing at international and domestic cricket matches and the major prize of a training session with the SpeedBlitz Blues team were used to promote the anti-speeding message.

A number of SpeedBlitz Blues players travelled with the 'On the Road' school roadshows, visiting more than 35 secondary schools across NSW and reaching around 6000 students.



SpeedBlitz Blues roadshow at St Peters Catholic College, Wyong.

Publications

The RTA provides a toll free road safety information number (1800 060 607) and an online ordering catalogue available from myResources at myRTA.com.

From July 2007 to June 2008:

- About 1.94 million road safety community education publications and other resources were sent to customers.
- RTA customers ordered 103,280 road safety publications by email via the online road safety resource catalogue.

Young driver website



Designed and written for youth, GEARED effectively engages readers in articles about road safety and licensing, without conveying any sense that they are being 'preached at' or 'spoken down to'.

In April 2008, GEARED was launched as a young driver website and is no longer produced as a magazine. GEARED.com.au is an online resource for young drivers, containing articles

about cars, driving and licensing, as well as polls, competitions and reader involvement. The three core sections of the site are sponsored by the NRMA, Toyota and Carsguide.com. The site was launched with a competition that asked young people to create a 15 second video illustrating just how bored they would be without their licence.

Local Government Road Safety Program

The Local Government Road Safety Program is a partnership between the RTA, NSW local councils, the Motor Accidents Authority and the Institute of Public Works Engineering Association (NSW Division).

The RTA and councils fund the positions of 80 road safety officers employed across 99 NSW councils to develop and implement road safety programs within their local communities. In 2007-08, working in consultation with local police, community groups, liquor accords and local businesses, road safety officers delivered a range of effective local projects including:

- Alternative transport schemes servicing licensed venues.
- Speed reduction on local roads.
- A web-based resource on safe partying.
- A road safety calendar and workshops for senior road users.
- Safe driving on icy roads.

In addition, the 'Helping Learner Drivers Become Safer Drivers' workshop was updated to include the principles of low risk driving, with 180 workshops provided across NSW.

Regulation and enforcement

Enhanced Enforcement Program

The RTA and the NSW Police Force work in close partnership to reduce road trauma. The Enhanced Enforcement Program (EEP) is a major component of road safety activity in NSW designed to extend the effectiveness of police enforcement by providing funding to enhance visible police enforcement. Enforcement activity is supported by public education campaigns developed by the RTA.

The success of State-wide operations, particularly around holiday periods, has led to an important evolution of the EEP with a diversification from State-wide operations to regional and local operations supported by localised public education strategies.

Heavy vehicle initiatives

National Heavy Vehicle Driver Fatigue Reform

The Heavy Vehicle Driver Fatigue Reform will be implemented in NSW, Queensland, South Australia and Victoria in September 2008. The reform will apply to heavy trucks with a gross vehicle mass of more than 12 tonnes and or truck and trailer combinations if the combined gross vehicle mass is also over 12 tonnes, and buses and coaches with more than 12 adult seats, including the driver.

The key element of the reform includes a general duty in road transport law, consistent with Occupational Health and Safety laws, to manage fatigue. This changes the focus from regulating hours to managing fatigue. It includes 'chain of responsibility' provisions which extend duties to all parties in the supply chain, namely drivers, operators, employers, loaders, unloaders, schedulers, consignors, consignees and prime contractors. There is a duty on all of these parties to take reasonable steps to ensure a driver does not drive while impaired by fatigue.

There are three fatigue management schemes in the reform: Standard Hours, Basic Fatigue Management and Advanced Fatigue Management. These provide alternative work and rest requirements with varying levels of flexibility, in return for controls to manage fatigue, and compliance responsibilities on operators and drivers.

As this is a major change for the industry, a comprehensive communication plan has been developed to reach all those affected, including pages on the RTA and National Transport Commission websites and attendance at industry events and meetings. In addition, a series of information sessions were held across NSW in April, May and June 2008 to promote awareness and provide information on the national model legislation. A total of 1065 people attended the 35 information sessions.

Heavy Vehicle Inspection Scheme

The RTA operates the Heavy Vehicle Inspection Scheme, an annual road worthiness inspection scheme in NSW. All heavy vehicles are required to undergo at least one inspection a year; public passenger vehicles (including school buses) are required to undergo two inspections as a condition for annual registration.

* In 2007-08, around 96,500 heavy vehicle inspections were conducted on vehicles at a variety of fleet, leased and RTA owned sites across NSW.

Heavy Vehicle Checking Stations

The RTA's seven Heavy Vehicle Checking Stations are a key part of its heavy vehicle enforcement program. Any heavy vehicle with a Gross Vehicle Mass greater than eight tonnes is required to enter a heavy vehicle checking station. Vehicles that fail to enter will be followed up for appropriate action by the RTA.



RTA staff carrying out roadside inspection duties.

Checking stations can use a number of automated screening checks to check heavy vehicle compliance with road transport legislation including:

- Safe-T-Cam.
- Weigh-in-motion.
- Dimensions sensors.
- TruckScan technology that enables heavy vehicles to be automatically selected for inspection based on an operators' compliance and road worthiness history and registration status.

A range of screening checks and inspections may be carried out at a checking station including log books, licence, registration, permit compliance, outstanding defects, load restraint, mass and dimension as well as brake and suspension testing.

Heavy vehicle speed enforcement (Safe-T-Cam)

The RTA has 24 Safe-T-Cam locations with a network of 27 cameras across NSW which are strategically positioned on major freight routes. Combined with 11 Safe-T-Cam sites operated by the South Australian Department of Transport, Energy and Infrastructure, the Safe-T-Cam network continues to target heavy vehicles which have travelled at excessive average speed, travelled beyond prescribed driving hours, attempted to avoid detection by Safe-T-Cam or which are unregistered. This resulted in 371,315 potential incidents being identified between July 2007 and June 2008. These are forwarded to the RTA for verification and further investigation when required.

Tow truck industry compliance and enforcement

During 2007-08, the RTA assumed regulatory responsibilities of the former Tow Truck Authority. The RTA established the Tow Truck Licensing and Compliance Branch to ensure that the focus on regulation of the towing industry was maintained and that the transfer of responsibilities was seamless.

Achievements within the past 12 months included:

- Introduction of a new towing authorisation which provides motorists with information on their rights and responsibilities when having their vehicle towed following a crash.
- Inclusion in the driver handbook of information for motorists about engaging towing services.
- National accreditation of a tow truck industry specific training program.
- Expansion of some tow truck licensing services so they are available through all motor registries.
- Expansion of compliance and enforcement operations within the Sydney, Wollongong and Newcastle areas, with the assistance of Vehicle Regulation Inspectors.

Road transport legislation

The RTA continues to consolidate and simplify road transport legislation in line with the NSW Government's Better Regulation Principles and the State Plan priority P3 – cutting red tape. This has resulted in increased accessibility for key stakeholders including the public, road users, the judiciary and the legal profession.

During 2007-08, the Road Rules 2008 was created – a new body of law that consolidates all applicable NSW road rules into one body of law. Previously, road rules applying in NSW resided in a combination of the Australian Road Rules and the former NSW Road Transport (Safety and Traffic Management) (Road Rules) Regulation 1999. The new Road Rules will begin on 1 July 2008.

Chain of responsibility – investigations and initial prosecutions

With the road freight task in Australia expected to double by 2020, a series of compliance and enforcement reforms were introduced under the *Road Transport (General) Act 2005*. As a result, all parties involved in the road transport logistics chain can now be held responsible for mass, dimension and loading requirements. New penalties and extensive enforcement powers were also introduced to provide effective monitoring of the industry. These have now been successfully implemented with investigations and prosecutions taking place.

Initial operations have involved hundreds of statutory directions being served, tens of thousands of records being obtained and potential enforcement activities identified (including 367 identified cases of 'severe' overloading). The RTA has also secured multiple Court Supervisory Intervention Orders under Section 109 of the Act and has secured the first conviction for failure to observe an Order. Australia's first chain of responsibility convictions of consignors were also made under the new laws.

Combating speed

Speed cameras

At 30 June 2008, 160 fixed speed cameras operated in 135 locations. Fifty-five of the cameras were operating in country NSW and 105 in metropolitan areas.

Speed limits

Speed limits have been reviewed on numerous roads across NSW with adjustments made to better reflect road safety and driving conditions. Examples include Bringelly Road at Bringelly, Richmond Road between Richmond and Blacktown, Old Northern Road between Baulkham Hills and Wisemans Ferry, Bangalow Road, Clunes, and the Princes Highway at Gerrigong and Dapto.

Intelligent Speed Adaptation

On 24 June, Minister for Roads Eric Roozendaal and Police Minister David Campbell launched Australia's biggest Intelligent Speed Adaptation (ISA) road safety trial. The cutting-edge technology will be installed in 100 cars in the Illawarra as part of the \$1 million project.

- * ISA is an in-car speed warning device that advises drivers of the speed limit from inside their vehicle and can also physically limit the vehicle's travelling speed.



In-car speed warning device advises driver of the speed limit.

In preparation for the project, RTA Road Safety Officers used GPS to plot the location of more than 4500 speed limit signs associated with 950 speed zones in Wollongong, Shellharbour and Kiama. Results from the trial will be released at an International ISA Conference to be hosted by the NSW Centre for Road Safety in November 2009.

Vehicles

Crashlab

RTA Crashlab, part of the NSW Centre for Road Safety, provides specialist testing services to government and industry clients. The facility enables all testing operations to be conducted on site. Crashlab is the only government-owned road safety facility of its kind in Australia, providing comprehensive research capabilities and unbiased testing of vehicle occupant and road user protection technology and equipment.

- * The Crashlab specialist testing operations contribute to long-term improvements in vehicle safety.

In 2007-08, Crashlab conducted 60 vehicle crash tests, and 400 dynamic sled tests on child restraints, seat belts, bus seats, aircraft seats, wheelchair restraints and miscellaneous devices. More than 24,000 impact tests were conducted on bicycles and motorcycle helmets. In addition, more than 160 tests were conducted on fall arrest devices covering industrial safety, sporting and recreational harnesses for product development and certification to the Australian Standard.

Infrastructure testing included a series of evaluations of the effectiveness of wire rope safety barriers installed on the edge of a vertical drop. The tests were designed to expand the suite of installation conditions that can be treated by these life-saving barriers.



Testing contributes to long-term improvements in vehicle safety.

Australasian New Car Assessment Program

The RTA is a major sponsor of the Australasian New Car Assessment Program (ANCAP), which has been crash testing and reporting on popular new model passenger cars since 1993. Since ANCAP began, safety levels in cars have increased significantly. It is expected that a combination of the testing regime and public demand for safer cars will increase the availability of vehicles with higher safety ratings. However, the risk of cheaper, poor safety rated imports is significant.

In 2007-08, ANCAP carried out tests on 25 vehicle models (18 of these tests were performed at Crashlab) and assessed others that were tested under the equivalent European regime. Of the Australian manufactured cars that were tested, none achieved the maximum five-star rating. However, it is anticipated that the new model Ford Falcon will achieve this rating.

ANCAP has continued to endorse Electronic Stability Control (ESC). ESC is a device that uses automatic computer-controlled braking of individual wheels to help drivers maintain control in critical driving situations in which the vehicle is beginning to lose directional stability at the rear wheels (oversteer) or directional control at the front wheels (understeer). In order to encourage the incorporation of ESC as a standard item in more models, ANCAP has made it a condition that a vehicle must have ESC fitted to be eligible to obtain a five-star rating. The RTA supports this initiative, in line with its policy to encourage safer vehicles.

An increasing number of vehicles are being tested for their effect on pedestrians in an impact. These results are included in the latest ANCAP brochures distributed through motor registries and NRMA branches. There is also a link to the ANCAP site on the RTA website.

Used Car Safety Rating

The RTA is a major sponsor of the Used Car Safety Rating (UCSR) scheme, which provides consumers with a comparative assessment of the level of protection provided in the event of a car crashing, based on actual crash data.

In 2008, UCSR data covered vehicles manufactured between 1982 and 2006 that were involved in more than three million crashes between 1987 and 2006 (based on reports to police in Australia and New Zealand).

The *Used Car Safety Ratings Buyer's Guide 2008* covers the majority of popular vehicles up to about four years old. The UCSR brochures are distributed through motor registries and NRMA branches. This year's brochure combined the two safety items used in previous years – the 'crash rating', which measures protection offered to the vehicles, and the 'aggressivity rating', which measures the likely affect the vehicle has on other road users, such as occupants of other cars and pedestrians, in the event of a crash – into a single 'crash safety rating'. It has crashworthiness ratings for 349 vehicle models with corresponding 'aggressivity' ratings for 278 of these vehicles.

Child Restraint Evaluation Program

The RTA is principal sponsor of Child Restraint Evaluation Program (CREP) (other sponsors are the NRMA and the RACV), which evaluates child restraints to determine the comparative protection provided to their occupants and their ease of use.

The results are presented in a brochure that also provides advice about using child restraints. The brochure is distributed at RTA registries, and NRMA and RACV branches.



New model of child restraint.

This is an ongoing program that annually assesses new models of child restraints, and the brochure is updated accordingly. In 2007, an additional 13 child restraints were evaluated and the revised brochure, which comprised 32 models with 44 configurations, was launched in December 2007.

To date, seven new models have been tested for the 2008 revision and the information is being prepared for the brochure launch later in the year. Additional information about CREP will soon be available on the safer vehicles section of the NSW Centre for Road Safety website.

Speed Zone Management System

A Speed Zone Management System has been developed to record the locations of all speed limit signs and zones in NSW. The system is both an asset register and a tool to facilitate speed reviews.

Staff are being trained to use the GIS map-based database.

It is also planned that the database will be a working platform for the future integration of technology such as Intelligent Speed Adaptation (ISA). In its simplest form ISA is an in-car speed warning device that advises drivers of the speed limit. For more information go to page 65.

Roads

Road condition

The RTA adopted the 'safe systems partnership' approach as a guide for best road safety practice. The approach emphasises the way different elements of the road transport system interact with each other to impact on road trauma.

✳ The road network is strategically planned, designed, built, maintained and operated to warn, inform, guide and control the road user in relation to their required actions on the road.

The system is also designed to minimise the consequences when a road user makes an error.

Pedestrian areas

In 2007-08, 40km/h schemes were installed or upgraded in 12 pedestrian areas and a further 20 pedestrian areas were identified for future upgrade. The program includes the installation of traffic calming measures that create a self-enforcing low speed road environment, safe and convenient pedestrian crossings and 40km/h speed limits.



Road signs at 40km/h pedestrian area.

'Brownfields' Road Design Guide

A revised version of the Brownfields Road Design Guide was released in November 2007. The guide integrates road safety into the road maintenance program, providing maintenance engineers with standards that can be retrofitted to existing roads.

Specialist safety advice

Since the release of the NSW State Plan in November 2006, and the identification of road safety as one of the plan's key priorities, road safety has been 'mainstreamed' across all RTA business areas.

This means that all RTA business areas have an identified responsibility for contributing to the RTA's road safety effort and outcomes as well as specific accountabilities and renewed commitment to achieve increased road safety.

The NSW Centre for Road Safety regularly provides road safety engineering advice on a range of projects through formal and informal meetings such as the Major Projects Review Committee. The Infrastructure area of the RTA, for example, with the involvement of the NSW Centre for Road Safety at key stages, has embraced road safety and mainstreamed initiatives into its business to ensure that each major project, from planning through to delivery, incorporates best practice road safety engineering principles. This is supported by a number of key management tools which have clear road safety objectives and outcomes, such as road safety audits, road safety impact statements, development program guidelines, project OHS development plans, ProjectPack and major project review committees.

The RTA also works in partnership with road management agencies such as councils, other State-based transport agencies, national bodies, and research bodies including the University of NSW's Injury Risk Management Research Centre and Monash University's Accident Research Centre to ensure best practice.

Crashcam

The RTA's Crashcam program continued. Sites are distributed across the State in locations where traditional crash investigation and analysis has not had a significant impact. Crashcam provides invaluable footage of crashes, 'near miss' incidents and driver behaviour to assist in determining the causes of crashes and appropriate remedial treatments.

Safety upgrade programs

Crash related treatments

A total of \$31.4 million in State funds was spent in 2007-08 on treatments to 196 high crash risk locations. Work by the RTA included intersection improvements, road realignments, clear zone enhancements and safety barrier installation. The Federal Government's AusLink Blackspot Program, administered by the RTA, implemented a further 123 crash reduction projects with total federal funding of more than \$15.9 million.

Newell Highway

A review of road safety was conducted on the Newell Highway. Similar to reviews conducted on the Pacific and Princes highways, the review team comprised corporate and regional road safety staff, police, and community representatives. A final draft report has been prepared.

Dog Trap Road Ourimbah, Central Coast Highway

The RTA is delivering the project in stages, with the upgrade of the Dog Trap Road intersection identified as a priority to assist traffic flow during peak periods and to help ease congestion outside Ourimbah Public School. Traffic signals were installed at the intersection of the Pacific Highway and Dog Trap Road, Ourimbah. The Pacific Highway has also been widened to two lanes in each direction between the existing Chittaway Road roundabout and the Ourimbah RSL bowling greens.

The upgrade will improve safety and ease congestion along this section of the Pacific Highway near Ourimbah Public School. A new pedestrian entry to the school has been constructed and a safety fence installed to restrict children from crossing the Pacific Highway. A new roundabout was built in Dog Trap Road to provide safe access to the Ourimbah Public School car park and the RSL car park, as well as providing a U-turn facility for school buses and other vehicles.

A shared pedestrian/cycle path was constructed on the western side of the highway to improve safety for pedestrians and cyclists. This project was constructed under high pedestrian and vehicular traffic, with challenges of assisting school children to access the school and enabling elderly residents to access the local RSL club.

Completed in July 2007, the work at this intersection and the road widening form part of a \$15 million project to improve safety for motorists, local residents and pedestrians and improve traffic flow.

Approaches to Pambula Bridge

The new bridge was opened to traffic in March 2008. A new horizontal alignment of the road improves safety by easing the southern curves and the improved route has made the road less prone to flooding.

Railway level crossing upgrades

The RTA continued to contribute to the improved safety of level crossings in NSW through the Level Crossing Strategy Council, the Level Crossing Working Group, Level Crossing Safety Improvement Program and, where appropriate, participation in other forums.

In 2007-08, seven major railway level crossing upgrades were undertaken in NSW as part of the Railway Level Crossing Safety Upgrade Program. These major improvements included converting sites from passive to active traffic control by using lights, bells, boom gates or illuminated signs to warn motorists that a train is approaching a level crossing.

Future challenges

Safer road users

- Continue to implement initiatives to increase child road safety across NSW including the further installation of the school zone fixed speed cameras which will become operational throughout 2008-09.
- Reinforce the changes to L and P plate licence conditions including increased driving hours and tougher driving tests.
- Continue to meet the challenge of making speeding a socially unacceptable behaviour.
- Increase awareness of the new drug driving legislation which will help increase the effectiveness of the drug testing program.
- Continue public education campaigns on the effects of speeding, fatigue and drink driving, with the challenge being to ensure their ongoing relevance and effectiveness.
- Continue to use regulation and enforcement in managing road user behaviour.
- Continue to work in partnership with NSW Police to implement the new safety regulations for school zones, for novice drivers and for drug testing.
- High visibility RTA/NSW Police operations to target speeding, drink driving, fatigue, heavy vehicle safety, seatbelt use and helmet use.
- Amend the Australian Road Rules to enhance road safety where required.
- Further improvements to the Mobility Parking Scheme.

Safer vehicles

The RTA will continue to advocate and advise on safer vehicles. The challenges in this area over future years will be to encourage:

- Australian manufacturers to achieve the maximum five-star result in the ANCAP testing.
- Manufacturers to make ESC a standard item in all models.
- Consumers to demand safer vehicles with comprehensive safety features.
- Manufacturers and consumers to adopt the ISA technology in vehicles.

Safer roads

The fundamental challenge for the RTA as it develops safer roads in the future is to further integrate the Safe System Partnership approach to minimise the impact to road users.

Other challenges will be to:

- Facilitate and undertake collaborative research, analysis and investigation of road safety engineering strategies targeted at promoting best practice and road safety engineering innovation.
- Exchange of road safety knowledge, information and research to build safer road partnerships with road safety practitioners both in NSW and beyond.
- Represent the RTA on peak committees and forums to provide leadership and constructive influence in the development of NSW, local and national road safety outcomes.
- Develop, implement and monitor performance in improving safety of NSW roads and roadsides.
- Integrate road safety engineering into policies, planning, strategies, business processes, programs and operations across the RTA.



REVIEW OF OPERATIONS

Environment

Environment

The RTA is working to minimise impacts on the natural, cultural and built environments.

The RTA and the environment

This chapter outlines the RTA's measures to protect the environment. The RTA has a strong 'green' agenda which means that it promotes positive environmental outcomes in road use and development, while working to reduce its own impact on the environment. Environmental leadership is also a key ambition for the RTA in areas such as encouraging the adoption of clean vehicle technologies.

This chapter shows how the RTA is achieving or working towards this agenda. It's divided into three main sections:

- The infrastructure section contains information about environmental initiatives related to RTA road work and bridge building, including how the organisation protects threatened species and biodiversity.
- The organisational section focuses on the internal measures the RTA takes to reduce its footprint, from reducing water use in office buildings to improving the efficiency of its light vehicle fleet.
- The emissions section discusses the important work the RTA does to reduce emissions from vehicles.

Section cover image: Photo taken by RTA staff member Chris Sutherland of a Dwarf Green Tree Frog on the Tourle Street Bridge construction site, over the Hunter River.

Infrastructure

Infrastructure planning and road works

Environmental assessment

In all of its activities, the RTA works to minimise its impact on the natural, cultural and built environments. The RTA also has statutory responsibilities to assess the environmental impact of its infrastructure projects as part of the planning process. The *Environmental Planning and Assessment Act, 1979* (EP&A Act) provides the framework for these assessments, during which the RTA identifies measures to avoid, minimise, mitigate, manage, monitor and, in some cases, offset the environmental impact of its activities.

During 2007-08 the Minister for Planning approved six projects and one concept plan under Part 3A of the EP&A Act. These approvals were for:

- The Sturt Highway to Mullengandra concept plan.
- The five sections of the Hume Highway duplication project:
 - Sturt Highway to Tarcutta.
 - Kyeamba Hill.
 - Little Billabong.
 - Yarra Yarra to Holbrook.
 - Woomargama to Mullengandra.
- The Pacific Highway Bulahdelah upgrade project.

In addition, the Minister for Planning approved a number of modifications to projects that were assessed under Part 3A of the EP&A Act. The Part 3A modifications were for the:

- Hume Highway duplication project.
- Table Top to Mullengandra project.
- M5 East project.
- F3 to Branxton link project.
- Windsor flood evacuation route project.
- Karuah to Bulahdelah project, part of the Pacific Highway upgrade.

The environmental assessment for the Pacific Highway, Kempsey to Eungai upgrade, was submitted for approval to the Minister for Planning at the end of 2007-08.

Part 3A environmental assessments for the Pacific Highway upgrades between Sapphire to Woolgoolga, Kempsey to Eungai and Banora Point were exhibited for public comment during 2007-08.

During the year the RTA determined 235 Reviews of Environmental Factors (REFs). These assessments examine potential environmental impacts of projects under Part 5 of the EP&A Act. The REFs were prepared in accordance with the RTA Environmental Impact Assessment Policy, Guidelines and Procedures.

The RTA referred five projects to the Australian Department of Environment, Water, Heritage and the Arts (DEWHA) for a decision on whether assessment and approval would be required under the Commonwealth *Environmental Protection and Biodiversity Conservation Act, 1999* (EPBC Act). Where projects have, or are likely to have, a significant impact on a matter of national environmental significance (known as a 'controlled action' under the EPBC Act), approval is required from the federal Minister for the Environment, Heritage and the Arts.

Three of the RTA's projects were found to be a controlled action for threatened species and communities listed under the EPBC Act and were approved. These were the Pacific Highway Bulahdelah upgrade, the Hume Highway Sturt Highway to Mullengandra upgrade and the F3 to Branxton link.

The Pacific Highway Bulahdelah upgrade was found to be a controlled action for potential impact on rare and threatened orchids. A range of measures have been undertaken to reduce impacts on these species including reducing the footprint of the design. The controlled action was approved on 10 September 2007.

The Hume Highway Sturt Highway to Mullengandra upgrade was found to be a controlled action, due to the potential impact on a critically endangered ecological community that included woodlands, grasslands and habitat for several threatened fauna species. Measures to reduce the impact of the project included avoiding areas of high quality habitat and the development of a biodiversity offset strategy. The controlled action was approved on 2 August 2007 and a variation was approved on 18 March 2008 following detailed design.

The F3 to Branxton link was found to be a controlled action for potential impact on Earps Gum (*Eucalyptus parramattensis* ssp *decadens*), Small-flower Grevillea (*Grevillea parviflora* ssp *parviflora*) and Black-eyed Susan (*Tetradlea juncea*). Measures to reduce the impact on these species included realigning part of the route and development of a remnant vegetation offset plan. The controlled action was approved on 2 August 2007.

Two of the referred projects – the Pacific Highway Banora Point upgrade and the Pacific Highway Sapphire to Woolgoolga upgrade – were not a controlled action and did not require approval from the Minister for the Environment, Heritage and the Arts.

Visit the RTA website for more information on the environmental impact assessment of RTA projects, including the projects mentioned here.

CASE STUDY

Hume Highway duplication – biodiversity offset strategy

The \$800 million Hume Highway duplication project involves the upgrade of five sections (67km) of single carriageway to a four-lane dual carriageway.

The project route design was selected to avoid or minimise impacts on biodiversity values where possible. However, some impacts could not be adequately mitigated through management measures alone. These included unavoidable impacts on the Box-Gum woodland endangered ecological community and impacts on habitat for threatened fauna species including gliders, woodland birds and reptiles.

A biodiversity offset strategy was developed to mitigate these residual impacts, in consultation with the NSW Department of Environment and Climate Change (DECC) and the Australian Department of Environment, Water, Heritage and the Arts.

The offset strategy includes an innovative collaboration with the Nature Conservation Trust of NSW to identify available land with conservation potential that is suitable for protection and rehabilitation via an in-perpetuity conservation agreement registered on the property's title. This arrangement aims to achieve excellent conservation outcomes in a highly cleared rural landscape.

Environmental performance

The RTA holds nine Environment Protection Licences (EPLs) under the Protection of the *Environment Operations Act 1997*. The EPLs were issued for various activities, such as waste storage, freeway/tollway construction for the F3 and F5 widening projects and a gravel extraction quarry at Mewburn.

In the past year, the RTA's Environment Branch carried out an intensive, voluntary licence compliance audit as part of its environmental performance improvement program. The audit revealed 26 non-compliances, which was a significant increase compared to previous years. The increase is a result of the audit, rather than any significant change to the management of the licensed activities. Most non-compliances were administrative and, fortunately, did not have the potential to cause environmental harm or community impact. These non-compliances have been, or are in the process of being, rectified and the RTA will use the audit's results to improve compliance and procedures.

During 2007-08, two Penalty Infringement Notices (PINs) were received from DECC. Both PINs related to erosion and sediment control incidents on project sites. One of the incidents occurred during 2006-07, but the PIN was not issued until November 2007.

Noise management

Engine compression brake noise

In November 2007 the Australian Transport Council unanimously approved a proposal from the National Transport Commission to introduce an in-service standard for engine brake noise. The standard is designed to prevent the sharp 'barking' sound that is made by some engine brakes. Treatment to remove this characteristic of noise is often accompanied by an overall reduction in noise level due to the fitting of a more effective muffler.

A noise camera system is proposed to enforce the new standard. The RTA opened a permanent engine brake noise camera site at Mt Ousley in November 2007. The site is trialling the new camera system set at the new standard. The RTA also began an education program using data from the Mt Ousley camera. Heavy vehicles that exceed the new standard are identified and the RTA sends a letter to the owners/operators advising them to take action before new regulations to implement the standard are introduced. Suggested action includes ensuring the vehicle's exhaust system is in good condition or fitting a specially designed muffler to reduce engine brake noise.

RTA Noise Abatement Program

In 2007-08, the RTA treated about 100 dwellings that were exposed to high levels of road traffic noise. Architectural noise treatments can include sealing around doors and windows, installing mechanical ventilation and replacing doors and windows with acoustically rated units. The majority of building treatments were provided in the Sydney region (around 80 homes) with the remaining treatments focused in the north and Hunter areas of the State. The RTA spent \$2.5 million on the Noise Abatement Program in 2007-08.

Internal noise limits for new dwellings

The RTA contributed to the development of new internal noise limits for dwellings built beside busy roads. These requirements were introduced in December 2007 in the State Environmental Planning Policy (Infrastructure) 2007. As an example, at night and in sleeping areas a noise limit of 35dB(A) applies. The requirements apply to dwellings built beside freeways, tollways, transitways or roads which carry a daily average of more than 40,000 vehicles. Maps showing these locations will be available on the RTA website to help home builders identify when they must account for internal levels of traffic noise in the construction of a new dwelling.

Road traffic noise policy

The RTA supported a review by DECC of the NSW Environmental Criteria for Traffic Noise policy (ECRTN). The RTA is part of an inter-agency working group that is revising the ECRTN policy, which was published in 1999. The group met on four occasions in 2007-08 and the review is ongoing.

'Quiet' road pavements

The RTA is examining new technologies to produce 'quieter' road pavements. The technology aims to reduce the level of noise emitted from vehicle tyres. Historically, open-graded asphalt has been used for this purpose but a new process of 'diamond grinding' concrete pavement has the potential to reduce tyre/pavement noise by a comparable amount. A rotating drum fitted with a large number of diamond saw blades is driven over the concrete pavement to smooth the surface. The process produces a set of closely spaced and shallow longitudinal grooves that contribute to lower noise. Preparations for trialling the 'diamond grinding' process are well advanced for a portion of the F3 Freeway near Sydney and is expected to occur in early 2009 after the first diamond grinding machine has arrived in Australia from the US.

Land and water

Finalisation of Blue Book 2

DECC finalised Volume 2 of *Managing Urban Stormwater – Soils and Construction* (Blue Book 2). The RTA worked closely with DECC to develop the Main Road Construction chapter of the book. Blue Book 2 provides industry-specific guidance for soil and water management for various industry types. The book is expected to be available on the DECC website in late 2008.

Designing construction sedimentation basins

A key issue in developing Blue Book 2 was whether the existing design criteria for sizing sedimentation basins for road construction were appropriate. Construction sedimentation basins are used on road construction projects to capture sediment-laden water in small to medium storms and to reduce the discharge of medium-coarse sediment in large storms. To assist the review the RTA funded a joint modelling research program with DECC to determine the environmental effectiveness of different basin sizes. The model examined the number of overtopping (or uncontrolled spill) events per year and the percentage capture of sediment.

Based on this research DECC has revised design criteria for sizing sedimentation basins for projects of between six months and three years duration. These guidelines specify that in standard environments the basins capture all water in an eightieth percentile rainfall event, with the standard increasing to the eighty fifth percentile for sensitive environments.

The modelling provides reasoned assumptions on the number of overtopping events that can be expected during the construction of specific projects and the potential sediment capture that can be expected during major storms. This information will be used to inform the public and other stakeholders about the expected environmental performance of RTA construction projects.



Sediment basin, Coopernook to Herons Creek upgrade.

Erosion and sedimentation control training

The RTA contracted the Soil Conservation Service from the NSW Department of Lands to provide annual review and licensed use of training materials for erosion and sedimentation control for construction sites for five years. The arrangement allows the RTA to continually improve training material.

★ During the last year, the RTA provided training in erosion and sedimentation control to more than 500 project managers, environment and design staff and contractor staff.

Collection and reuse of rainwater at RTA depots

The installation of rainwater tanks at RTA depots continued. Rainwater is now being reused at vehicle wash bays, for on-site irrigation and in amenities blocks at Granville, Wyong, Ballina, Murrundi and Tamworth depots. More funds have been allocated for the 2008-09 financial year to install rainwater tanks and replace fittings with water efficient ones.

RTA Depot Environmental Improvement Program

About \$2 million was spent on environmental improvement work at RTA depots. Work included remediation of contaminated sites, removal of underground storage tanks and remediation of associated contamination, and improvements to infrastructure such as wastewater and stormwater treatment devices.

CASE STUDY

Cooreei Bridge

Environmental protection measures for the upgrade of the Cooreei Bridge over the Williams River in Dungog were tested when flood waters triggered an emergency evacuation of the site.

A unique approach to the upgrade of the 102-year-old Cooreei Bridge ensured the river environment was protected while work was underway. The upgrade involves replacing the two main span bridge piers to increase its capacity. The slope and width of the riverbank were too steep and narrow to allow work to be undertaken from the bank and machinery was not allowed to enter the waterway. To overcome this problem, rock working platforms and box culverts bolted together were installed in the river to create a temporary river crossing and work platform. This allowed work to take place from the platform, while still maintaining water flow and fish passage and minimising disturbance to the riverbanks. Other environmental protection measures included sediment curtains, a hydrocarbon boom and bunding around the perimeter of the work platform. (Bunding is an environmental control measure which aims to prevent or capture contamination.)

These measures were put to the test when sustained rain caused the river to flood by more than seven metres and prompted the evacuation of the work site. Starting at 4pm on Thursday 24 April 2008, staff worked into the night moving heavy machinery, site sheds and containers to higher ground. Their efforts were a success, with no equipment lost or damaged and environmental impacts minimised.

Protecting biodiversity

The RTA uses many mechanisms to protect biodiversity including internal environmental impact assessment policies, guidelines and procedures, stringent environmental specifications, regular environmental audits and inspections of construction sites, and environmental awareness training for RTA staff and council workers. An outline of the RTA's projects to protect and enhance biodiversity in 2007-08 are included in Table 8 on page 78.

An example of the RTA's commitment to biodiversity is its contribution to the NSW Wildlife Council. The council coordinates wildlife carer groups and advises carers on wildlife management policy. Wildlife carers support the RTA by accepting and caring for wildlife injured on roads. In recognition of the valuable voluntary services provided by carers, RTA will support the council for the next three years.



Planting on the Bonville upgrade.

Threatened species

The RTA contributed to a number of Threatened Species Recovery Plans prepared by DECC in accordance with Part 4 of the *Threatened Species Conservation Act 1995*. Refer to Appendix 2 for full details.

Green and Golden Bell Frog, Arncliffe

The RTA is continuing to manage the Green and Golden Bell Frog population in ponds constructed as a compensatory measure for the M5 East. The RTA has made a preliminary assessment of the actions needed for the long-term operation of the ponds. Preliminary discussions with DECC have also occurred on the long-term management of the site. The RTA was in discussions with the Department of Planning, the local council and others on the establishment of a management committee to take over management of the ponds from 2009.

Woolooware Shorebird Lagoon

This compensatory habitat was handed over to DECC in March 2008, along with a \$50,000 contribution from the RTA. The funding will establish an ongoing management program.

Purple Copper Butterfly, Lidsdale

The RTA continued monitoring and maintenance work for the translocation of a population of the Purple Copper Butterfly. Butterfly larvae were translocated from a worksite area of the Castlereagh Highway near Lithgow in 2005-06. Monitoring at the site has indicated that the translocation was successful and the State and Commonwealth-listed threatened species butterfly population is now increasing at this site as a result of ongoing maintenance and habitat enhancement.



Purple Copper Butterfly, Lidsdale.

Vegetation management at Beverly Grove

The RTA completed its contract with the National Trust to regenerate a remnant of Cooks River Castlereagh Ironbark Forest at Beverly Grove as part of the compensatory measures for the M5 East. The five-year contract removed weeds and planted native flora species. A five-year maintenance plan has been developed with reference to the DECC Cooks River Castlereagh Ironbark Forest recovery plan. The preservation of this remnant forest is to be discussed with Department of Planning, DECC and the local council.

TABLE 8: BIODIVERSITY PROJECTS

Activity	Purpose	Progress in 2007-08
Developing measures to minimise road impacts on biodiversity	Management of wildlife on roads	The RTA has been part of a community working party to investigate measures to minimise road kill in Pittwater and Warringah LGAs. The RTA contributed funds to install fauna exclusion fencing along a section of the Wakehurst Parkway, Sydney, to reduce wildlife road kill.
Contribution to the NSW Wildlife Council	Management of wildlife on roads	The RTA provided \$20,000 to the NSW Wildlife Council. The council coordinates wildlife carer groups and advises carers on wildlife management policy.
Trialling the effectiveness of odour repellents	Management of wildlife on roads	The RTA continued to fund a postgraduate university project on the use of odour repellents for managing wildlife collisions. The study is building on promising results from previous RTA-funded research.
Research into measures to mitigate bird strike with transparent noise walls	Minimise impacts to biodiversity	The RTA funded a project that identified measures that could be incorporated into the design of transparent or semi-transparent noise walls to minimise bird deaths from striking the walls.
Hume Highway Threatened Species Monitoring Program	Minimise impacts on biodiversity	The RTA funded a threatened species monitoring program as part of the Hume Highway duplication.
Research into post construction and operational impacts of bridges on estuarine environments	Determine the effect of bridges on estuarine environments	The RTA funded a university research project in 2006-07. The researchers are finalising monitoring in 2007-08.
Fund research into effects of road construction and operation on koala populations adjacent to the Pacific Highway at Bonville	Koala population research	Research continued with funding of \$125,000 in 2007-08.
Threatened orchid translocation project at Bulahdelah	Minimise impacts to biodiversity	The RTA funded the CSIRO to develop a translocation plan for threatened orchids as part of the Pacific Highway upgrade at Bulahdelah.
Research into effectiveness of measures to allow threatened fauna to move across roads	Minimise impacts on biodiversity	The RTA contributed \$50,000 to a joint research project with Vic Roads and the University of Melbourne to determine the effectiveness of fauna crossing structures for roads.

Roadside environment

The RTA continued to host and fund the Roadside Environment Committee (REC). The REC is a multi-agency advisory body that promotes the management of linear reserves to balance environmental values and safety.

Key achievements included:

- An extensive strategic and operational review to update membership and determine the REC's future direction.
- Completion of the third and final year of the 'Saving our Corridors' program funded by the Environmental Trust. As part of this program the REC trained 11 local

government authorities or regional groupings during 2007-08. All councils and rural lands protection boards were surveyed to determine their funding and technical requirements for the next five years.

- Presentations on linear reserve management for Catchment Management Authorities, State and Commonwealth environmental bodies, research bodies and peak natural resources groups.
- Distribution of hundreds of 'significant environmental area' signs and handbooks for roadworks operators, and operation of a full-time information and referral service for both the public and agencies.

PHOTO COURTESY OF RODNEYVAN DER REE

CASE STUDY

Monitoring threatened species on the Hume Highway duplication



This Squirrel Glider was fitted with a radio transmitter monitor as part of the Hume Highway duplication project. Details of the animal are recorded before it is released.

The Hume Highway duplication involves the construction of 44km of new carriageway between the Sturt Highway and Mullengandra in southern NSW. Before construction began in December 2007, a thorough environmental assessment was undertaken. The assessment identified a range of threatened species in the local area, and the project's design was refined to minimise impacts on these species and their habitat. Features included drainage culverts designed to allow the passage of threatened fish, strategic planting of roadside vegetation to provide habitat, construction of fauna underpasses to enable animals to cross safely beneath the road, and rope bridges for animals to traverse from tree to tree over the road.

A threatened species monitoring program has begun, to shed light on the long-term impact of the road and its design on the lifecycle of threatened species. The monitoring program is targeting populations of threatened woodland birds, reptiles, fish and squirrel gliders that were identified in the environmental assessment stage. Before construction began, ecologists undertook field surveys to gain a detailed understanding of the local population dynamics. Squirrel Gliders were part of a radio tracking study over a number of seasons that recorded their movement. The monitoring results will provide valuable information for managing the impact of future road projects on threatened species. More broadly, the results will aid conservation management in the region.

Heritage

Aboriginal culture and heritage

A new procedure for undertaking Aboriginal cultural heritage investigations and Aboriginal community consultation was launched by the RTA Chief Executive. The Procedure for Aboriginal Cultural Heritage Consultation and Investigation (The Procedure) is consistent with cultural heritage legislation and policies, and meets the RTA's commitment under its Aboriginal Action Plan 2006-2010. A training program for the implementation of The Procedure will be delivered to internal and external stakeholders in 2008-09.

Heritage asset management strategy

The State Agency Heritage Guide (Heritage Office, 2005) requires all state agencies to develop heritage asset management strategies. The RTA Heritage Asset Management Strategy will be submitted to the Heritage Council of NSW in 2008-09.

Heritage and Conservation Register

The RTA has a responsibility under section 170 of the *Heritage Act 1977* (NSW) to identify and manage the items of heritage in its ownership or control. These items are predominantly bridges but also include vehicular ferries, property assets, movable collections and archaeological items.

The RTA Heritage and Conservation Register (S170 Register) is regularly updated. There are 422 RTA owned or controlled items on the S170 Register including 35 State Heritage-listed items, and their condition is summarised in Table 9.

TABLE 9. CONDITION OF RTA HERITAGE ITEMS

Total number of RTA items		422
State Heritage Register listings		35
Condition	Good	202
	Fair	130
	Poor	80
	*Not known or applicable	10

During the year the RTA advised the Department of Planning, NSW Heritage Branch, that a number of items would be removed from the S170 Register due to being re-assessed, demolished or transfer of ownership. These included:

- Robinvale Bridge over the Murray River and approaches 1 and 2 (item numbers 4301008, 4301674 and 4301635).
- Old Marulan Town, Lots 1, 7 and 14 (item number 4300302).
- 379 Wilson Street, East Albury (item number 4305612).
- Square and Compass Inn, Lidsdale (item number 4305613).
- Sandstone Kerbing, Five Dock (item number 4310581).
- Queen Anne House, London Terrace, Enmore (item number 4301041).
- Swanbrook Creek Bridge (item number 4309524).
- Murray River Approach Bridges, Corowa, 1, 2 and 3 (item numbers 4301631, 43016324 and 4301633).

State Heritage Register

The RTA has 35 heritage items listed on the State Heritage Register. The NSW Heritage Council has approved applications under Section 60 of the *Heritage Act 1977* (NSW) for the following work on State Heritage items:

- Coorei Bridge, Dungog: replacement of piers 2 and 3 with double trestle piers mounted on a concrete sill.

- Coonamit Bridge, Wakool (pictured below): capacity upgrade of approach spans and replacement of the three timber trestle piers supporting the truss spans with steel piers of similar design.
- Morpeth Bridge, Morpeth: capacity upgrade of truss deck and approach spans. Replacement of seven southern approach spans with an earth embankment faced with a vertical retaining wall.



Coonamit Bridge, Wakool.

Information about the status of previously approved work on items on the State Heritage Register and work on the RTA's S170 Register items is provided in Table 10.

TABLE 10. PROGRESS UPDATE FOR HERITAGE ITEMS

Heritage item	2007-08 progress
Wallaby Rocks Bridge, Sofala (Item 4300155)	Major upgrading continues to improve structural capacity while reducing the amount of timber needed for maintenance.
Dunmore Bridge (Item 4301091)	Major upgrading continues to improve structural capacity while reducing the amount of timber needed for maintenance.
Tabulam Bridge, Tabulam (Item 4306089)	A Statement of Heritage Impact was prepared for the proposed replacement of timber cross girders with steel cross girders.
Sydney Harbour Bridge (Item 4301067)	A Statement of Heritage Impact was prepared for the 2007 New Year's Eve projections.
Cable ferry, Wisemans Ferry (Item 4300311)	Ferry no. 8 built in 1928 initially serviced the Harwood Crossing before being moved to Wisemans in 1966. It was replaced with a vessel of similar design that better meets modern OH&S requirements.
Great North Road (retaining walls, culverts, road cutting) (Item 4309678)	Courthouse Cave, Old Northern Road, south of Wisemans Ferry. Two steel columns were installed to support the rock overhang as part of the RTA's slope stabilisation project. The cave forms an archaeological precinct significant for the construction of the Great North Road between 1826 and 1834. Limited archaeological investigation was undertaken with approval from DECC prior to installation of columns.

Conservation Management Plans

The RTA is implementing a Conservation Management Plan for the causeway at Victoria Pass on the Great Western Highway, west of Mount Victoria. The plan comprehensively addresses the heritage aspects of the retaining wall and gives broad consideration to future work on and near Victoria Pass. Victoria Pass celebrated its 175th anniversary in October 2007, and as part of the celebration the RTA nominated the pass for addition to the State Heritage Register.

Oral history

Oral history provides an important record of our changing society. It records in the spoken word the first-hand experiences of individuals and complements formal written history.

The following oral history projects were undertaken during 2007-08:

- Interviews were completed for an oral history of the Karuah Bypass. These interviews will be compiled with similar interview material previously collected at Goulburn and Armidale, and a compilation CD prepared. This CD will discuss the planning and development of the three bypasses and highlight the ways that these towns have changed since being bypassed.
- Sydney Harbour Bridge 75th anniversary. Interviews recorded during the community celebration on 18 March 2007 were compiled onto a CD which examines both the planning of the event (transport, crowd management, artistic elements and more) and the feelings of the community about 'their bridge'. The CD is available for purchase through the RTA Library, and an mp3 version is available for free download from the RTA website.

CASE STUDY

Junction Bridge Restoration



Restoration works on Junction Bridge, Tumut.

The Junction Bridge restoration project was an exceptional achievement in 2007-08. Due to their best practice efforts in this complex bridge restoration, the bridge rehabilitation team received the 2007 Staff Award for Sustainability.

Junction Bridge spans the Tumut River and was built in 1892. It is listed on the State Heritage Register due to its significance as a McDonald-type timber-truss bridge. The timber trusses had severe damage from an overloaded vehicle as well as general wear and tear. To keep the crossing in service, the bridge was fully rebuilt. This was done in consultation with the Department of Planning.

Detailed project planning and a high level of sensitivity to the heritage requirements were needed to ensure this project was successful.

* The outstanding success of the restoration has strengthened the RTA's links with the local community, and has generated training and toolbox materials for heritage bridge work.

Urban design

Transport infrastructure is an integral part of cities, towns and villages and influences their form, function and character. The RTA has developed an urban design approach to all of its work which is concerned with:

- How infrastructure fits into and shapes its broader built, natural and community environment.
- How all systems of transport are integrated into communities and the road corridor design.
- The quality and safety of the public domain and the experience of travel.

These goals are developed in the RTA's urban design policy, *Beyond the Pavement*. Design guidelines are produced as part of the policy and the latest, published in April 2008, was the RTA's Landscape Guideline. This covers the approach, principles and standards needed to produce quality, safe and cost-effective landscaping of the road corridor.

Achievements

The RTA measures its urban design performance by the endorsement of stakeholders, communities and approval bodies, including awards and the quality of the built environment left as a legacy of completed projects.

Urban design achievements this year included:

- Key projects of the Pacific Highway Upgrade Program which were designed to fit sensitively within the unique coastal landscape and connect communities along the Pacific Highway corridor. Urban design assistance has also been provided to the Tugun Bypass project, funded by the Australian and Queensland governments.
- Construction of Leura to Katoomba Section 2 on the Great Western Highway, continuing the very successful and integrated outcome completed in Section 1. Planning and design work was undertaken for upgrades through Lawson and Wentworth Falls East.

- Design of the Iron Cove Bridge duplication and upgrade of Victoria Road at Rozelle and Drummoyne, taking into account the sensitive relationship with the Iron Cove Bridge, the context of Iron Cove and links with the popular Bay Run.
- Duplication of Alford's Point Bridge over the Georges River, the design of which followed the Bridge Aesthetics Design Guideline.
- Bangor Bypass (Stage 2) is being developed in a way which is consistent with the quality outcomes of the Stage 1 work.
- The Southern Hume Highway duplication projects are under construction following design principles to assist a sensitive fit with the undulating landscape of southern NSW and provide a safe and enjoyable road user experience.

Network and corridor urban design

The RTA takes a broad approach to the design of its roads, recognising that all projects need to be designed as a part of the road corridor, or network, in which they are situated. For example, the Pacific Highway Corridor Urban Design Framework helps guide the planning and design of Pacific Highway upgrades. Similar frameworks have been initiated this year for Bringelly Road and the Northern Road in the Sydney's south-west growth centre. These fit into a broader road planning and urban design framework for the Sydney Growth Centres.

RTA urban design guidelines and documents are available on the RTA website.



Urban design on the Brunswick Heads to Yelgun upgrade.

Organisational

Natural resources and waste

The Green Plan

The RTA Corporate Plan 2008, *Blueprint*, incorporates 'The Green Plan' setting out strategies to address the important challenges of climate change and environmental sustainability. The Green Plan focuses on three key program areas:

- Demonstrating leadership in environmental research, policy and communication.
- Developing 'green' partnerships.
- Reducing the RTA's environmental footprint.

To help deliver the Green Plan, the RTA has established a Sustainability Working Party, with representatives from across the organisation, to review and recommend environmental sustainability projects.

Key projects to be implemented under the plan include:

- Promoting and improving education on the benefits of using recycled materials in construction and maintenance.
- Reducing the environmental impact of the RTA's properties and fleet.
- Examining opportunities to procure more sustainable goods and services.

Resource management and waste reduction

The RTA continued to work to reduce waste and increase recycling in accordance with the NSW Government's Waste Reduction and Purchasing Policy (WRAPP). Key initiatives in 2007-08 included the following:

Office supplies

Environmental considerations were included in tenders for the supply of office goods and services. The RTA's green supply chain principles and programs will be developed further as part of the RTA's participation in DECC's Sustainability Advantage program.

CASE STUDY

Consolidation of printing devices

Before 2007, the RTA had more than 2100 printers, fax machines and photocopiers. As a result of a new contract to supply multifunction printers, the number of these devices has been reduced to 715. This change has reduced the RTA's greenhouse emissions by approximately 13 tonnes of carbon emissions per month. The new contract also involves the supply of recycled paper, resulting in the proportion of A4 copy paper containing recycled content used by the RTA increasing from 46 per cent in 2006-07 to 95 per cent in 2007-08.

Construction and maintenance procurement and waste

The RTA recycles and reuses a range of materials in construction and maintenance projects.

The RTA is working with DECC and industry to trial the use of alternative recycled construction materials, including scrap rubber and crushed glass in road pavements, and to develop appropriate standards for their use. Following a detailed risk assessment of the reuse of chemically treated bridge timbers a reuse trial began in June 2008.

Greenhouse and energy

Energy use

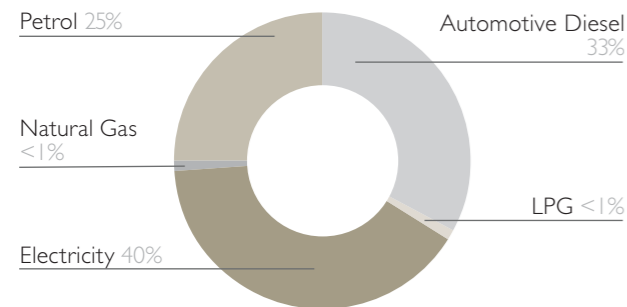
The RTA reports annually on its direct energy consumption, in accordance with the NSW Government Energy Management Policy (GEMP).

The RTA's major direct energy uses include electricity to operate traffic signals, street lights and buildings, and diesel and petrol for road machinery and RTA vehicles. The RTA uses minor amounts of LPG and natural gas for heating buildings, in light vehicles and in plant and asphalt manufacture.

The RTA's direct energy usage profile for 2006-07, in terms of proportion of energy consumed (gigajoules) by energy source, is shown in Figure 17.

FIGURE 17. ENERGY USE PROFILE

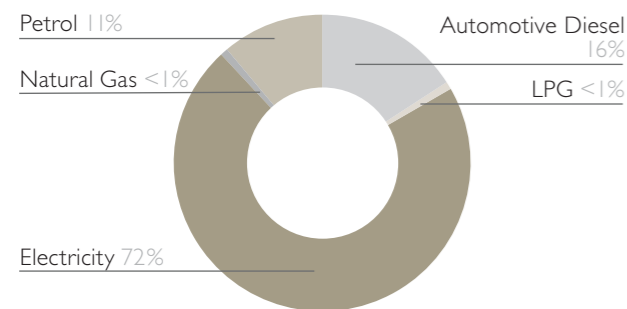
(% of direct energy consumption as measured in gigajoules)



All of the energy sources consumed by the RTA generate greenhouse gas emissions. The proportion of the RTA's direct greenhouse gas emissions by energy source for 2006-07 is shown in Figure 18 below.

FIGURE 18. DIRECT GREENHOUSE GAS EMISSIONS PROFILE

(% of direct greenhouse gas emissions as measured in tonnes of carbon dioxide equivalent)

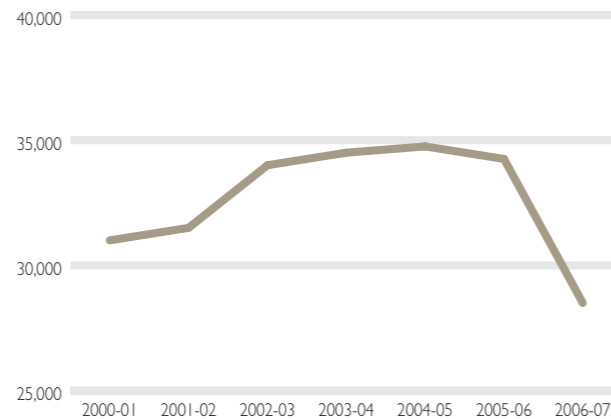


The RTA's work to improve energy efficiency included:

- Completion of the program to replace incandescent traffic lights with more efficient light emitting diode (LED) technology. The replacement program has led to a significant reduction in electricity consumed in traffic lights as shown in Figure 19.
- The RTA continued a downward trend in greenhouse gas emissions from its light vehicle fleet. This was achieved through the selection of vehicles with good environmental performance, the use of ethanol-blended fuel and a higher proportion of LPG vehicles in the fleet.
- The ongoing purchase of accredited Green Power electricity. For example, six per cent Green Power is purchased for the RTA's street lights, traffic signals and major buildings.

FIGURE 19. ELECTRICITY USAGE – TRAFFIC SIGNALS

ELECTRICITY CONSUMPTION (MWh)



Despite these improvements, greenhouse gas emissions associated with the RTA's total direct energy consumption increased by approximately one per cent in 2006-07 compared to the previous year. This result was mainly due to improved energy data collection.

Energy management

The RTA developed an Energy Management Plan to provide a strategy to reduce energy use from office buildings, motor registries, depots, work centres, traffic signals, street lights and the RTA's light and heavy vehicle fleet.

Identified actions include:

- Establishing improved data management, reporting and feedback systems.
- Developing targets and key performance indicators.
- Strengthening accountability for energy performance.
- Pursuing specific energy reduction opportunities in building management, traffic signals, street lights and heavy vehicle operations.

The plan will be integrated with other sustainability initiatives and will help the RTA to meet the demands of the forthcoming NSW Sustainability Policy for State Government agencies, including the requirement to become carbon neutral by 2020.

Industry programs

'Every drop counts'

The RTA joined Sydney Water's 'Every drop counts' program to reduce the RTA's water use.

Program activities include:

- Water management review workshops to determine water management priorities and establish benchmark information.
- Collection and review of water usage data for all RTA metered properties within Sydney Water's area of operations.
- Water audits and inspections of sites that have high water consumption rates and potential for water savings.
- Review of water use during road construction and maintenance.

The program is only available to Sydney Water customers and therefore only applies to RTA activities in Sydney, the Blue Mountains and the Illawarra. However, the program's findings will be used in the preparation of an overall RTA Water Savings Action Plan, due to be completed in early 2009.

'Sustainability advantage'

The RTA joined DECC's 'Sustainability advantage' program, which is designed to:

- Accelerate environmental priority actions and the sustainability agenda.
- Integrate environmental sustainability as a core business value.
- Help organisations to understand their environmental responsibilities and business risk issues.
- Build capacity and effective management systems to drive continuous improvement and sustainable change.

The RTA will work with DECC to:

- Determine critical sustainability projects based on the RTA's business priorities, including the Green Plan.
- Identify sustainability projects and develop sustainability programs in areas such as resource efficiency, supply chain management and staff awareness.

Emissions

LPG emissions tests

The RTA continues to conduct emissions tests on a variety of vehicles to ensure that LPG-fitted vehicles continue to meet emissions standards. Eighty-four LPG kits were tested in 2007-08.

Diesel Retrofit Program

The RTA's Diesel Retrofit Program aims to improve the emissions performance of heavy diesel vehicles operating in the Sydney Greater Metropolitan area by fitting emissions-reducing devices to vehicle exhaust systems.

At 30 June 2008, 71 fleets were participating in the program and 365 vehicles had been fitted with these devices.

Funding was provided by DECC to implement a Diesel Retrofit Demonstration Program. Following the success of the program, the Federal Government provided additional funding to expand the program. The continuing success of the program led to further funding being provided by DECC. A co-contribution style retrofit program – where both the NSW Government and the vehicle operator contribute to the cost of the device – will now be implemented with additional funds from DECC.

Clean Fleet

The RTA's Clean Fleet Program is an audited vehicle maintenance program designed to improve air quality by reducing diesel emissions. Participants must meet standards for using clean fuel, correct engine settings, regular vehicle maintenance and effective fault identification and repair. Clean Fleet is an accredited program under the Federal Fuel Tax Credits Program and participants are eligible to seek a fuel tax credit.

The Ministry of Transport requires Metropolitan Bus Systems Contract Operators to join the Clean Fleet Program. The DECC Model Waste and Recycling Collection Contract also requires waste management contractors to join Clean Fleet.

At 30 June 2008, there were more than 5500 vehicles in the program with new applications continuing to increase.

Diesel emissions awareness course

The RTA sponsors a free TAFE course for truck and bus owners, drivers and operators, diesel mechanics and fleet and workshop managers on 'how to reduce heavy vehicle emissions'. The course is run in Sydney, Shellharbour, Kurri-Kurri, Tamworth and Wagga Wagga. One module of the course is about how to join Clean Fleet. In 2007-08, 28 courses were run, attended by 171 participants.

Emissions training

Training sessions were run for University of Western Sydney environmental students and TAFE apprenticed motor mechanics to demonstrate the RTA's light vehicle emissions testing facilities. During 2007-08, 110 students attended these sessions.

Light vehicle emissions testing

In 2007-08, the RTA conducted 1449 emissions tests for light vehicles at Botany and Penrith motor registries. There have been 15,760 tests undertaken since voluntary light vehicle testing was introduced in 1998. Vehicles are referred for testing by DECC and modified vehicles are referred by engineering certification signatories.

National In-Service Emissions 2 (NISE2) study

The Federal Government funded the RTA to project manage emissions testing of a representative sample of the Australian light vehicle fleet built between 1994 and 2007. Testing began in November 2007, with 254 in-service vehicles being tested for the appropriate emissions, under the Australian Design Rules, for the age of the vehicle. The project will provide valuable up-to-date emissions data for modelling and future policy development.

Smoky vehicle enforcement

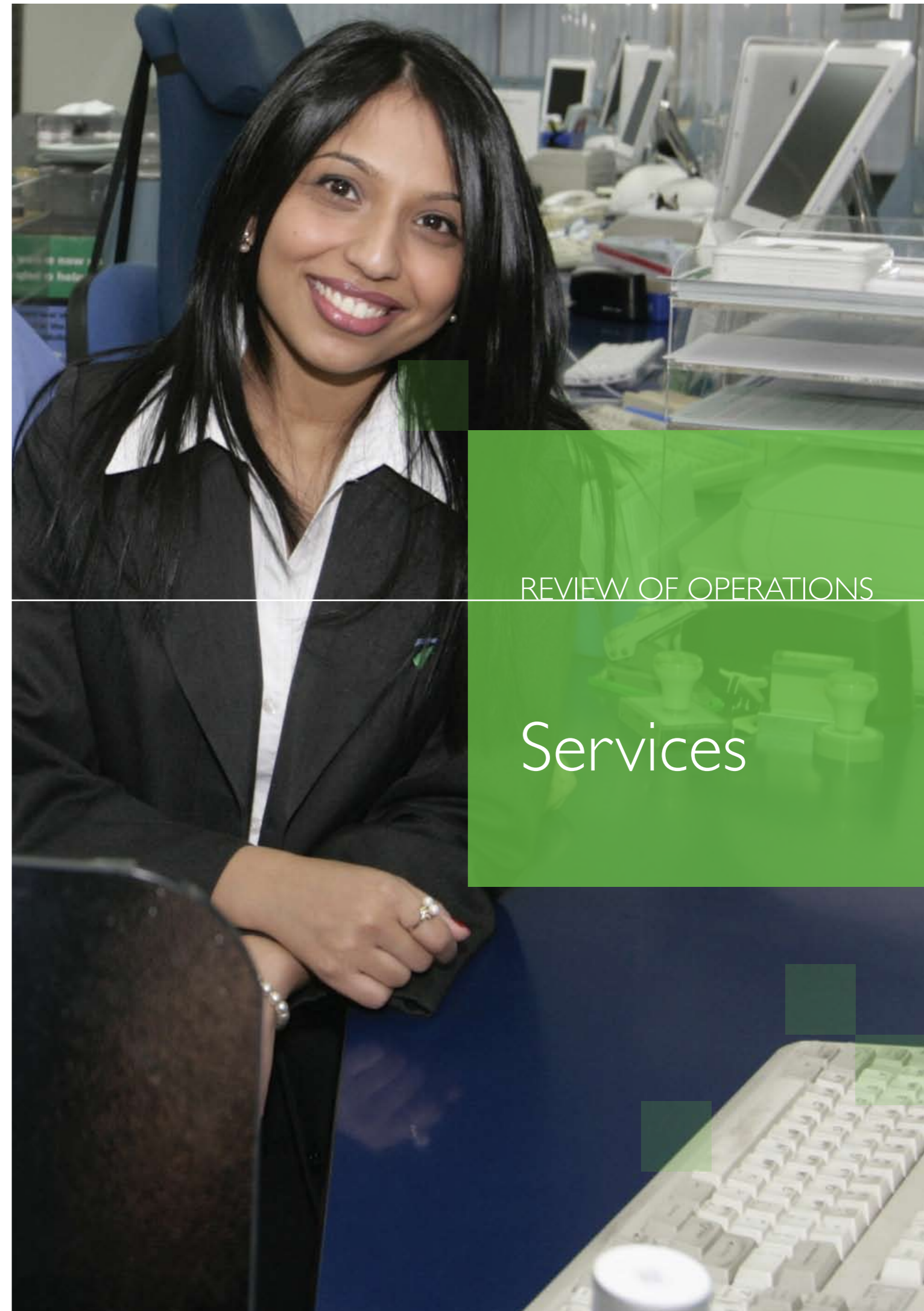
During 2007-08 RTA Vehicle Regulation Inspectors reported 15 vehicles that were considered to be emitting excessive visible smoke. Nine Penalty Infringement Notices were subsequently issued by DECC.

Emissions standards

New emission standards (Euro 4) for vehicles operating on diesel, LPG and natural gas were introduced for all vehicles manufactured from 1 January 2008. The standards are aimed at improving air quality.

Future challenges

- Provide training and tools to assist in the promotion of purchasing recycled content and/or materials with lower environmental impacts for stationery and other supplies across all RTA operations.
- Develop improved data collection and reporting systems to allow centralised reporting of procurement and waste data for construction and maintenance projects.
- Continue to work with DECC, other government agencies and private industry to trial the use of alternative recycled materials for use in road construction.
- Implement the Energy Management Plan and carbon management principles to achieve the requirements of the forthcoming Sustainability Policy for NSW Government agencies, including the requirement to become carbon neutral by 2020.
- Further reduce greenhouse emissions from RTA activities such as road construction works.
- Develop improved reporting systems to track energy use in RTA buildings.



REVIEW OF OPERATIONS

Services

Services

The RTA strives to meet the community's needs

The RTA's services

The RTA works to meet the needs and expectations of its broad range of customers, such as those who use its licensing and registration services and those who are affected by the RTA's road work and management of the road system in NSW.

The RTA provides its services in many ways, including through an extensive network of motor registries which are the central point for licensing and registration transactions. This network also provides important information to the community about issues such as the comparative safety of new and used cars and the safety performance and ease of use of child restraints.

This chapter outlines some of the very broad range of activities that the RTA has undertaken in the past year to serve the people of NSW.

Customer service

In 2007-08, the RTA provided registration and licensing services to 4.64 million drivers and riders and 5.2 million registered vehicles in NSW.

These services were delivered through motor registries, agencies, the RTA Contact Centre and online.

Motor registries

The RTA has a network of 129 motor registries, a Contact Centre in Newcastle, five Government Access Centres (GACs) and 33 agencies, which also provide RTA services.

Services are also provided at 40 itinerant sites in remote areas. An itinerant site is a location that RTA staff visit to provide transactional services such as knowledge and driver tests. This network of locations minimises travel and provides more convenient access for customers in regional locations. See page 283 for contact details.

* A survey of customers conducted in May 2008 found that 93 per cent rated motor registry services 'good' or 'very good'.

Motor registries are also a useful source of vehicle safety information. The registries distribute consumer advice including the Australasian New Car Assessment Program (ANCAP) Annual Safety Review that provides crash-test safety ratings for new vehicles, Used Car Safety Ratings of old vehicles and a guide to buying safer child restraints.



Blacktown motor registry, June 2008.



Blacktown Motor Registry new premises – The registry was relocated from 85 Flushcombe Road to the Blacktown Mega Centre, corner of Blacktown Road and St Martin's Crescent in October 2007.

RTA Contact Centre

The Contact Centre provides support to customers by offering accurate and timely information on licence, registration and tolling services over the telephone. Customers can obtain information or choose to complete business while on the telephone rather than visit a motor registry.

Government Access Centres

The Government Access Centre (GAC) program continued in 2007-08, delivering services to customers in remote and rural NSW, and enhancing partnerships with Government service providers. Transactions ranging from receipting payments to providing information and referrals for agency services are completed on behalf of nine key State Government agencies. These services were provided in addition to the GAC's host agency core business.

Identity management

The Proof of Identity Unit assists motor registries with high-risk or difficult identity management issues. The purpose of the unit is to help strengthen the RTA's processes for verifying customer details, reduce opportunities for the issue of inappropriate documents that could foster identity fraud, and improve links with other identity issuing agencies. The RTA has undertaken an Austroads-sponsored trial of facial recognition software as part of joint investigations into new technology to enhance identity security.

Management of the Austroads Registration and Licensing program

The RTA continued to manage the Austroads Registration and Licensing Task Force in 2007-08. The task force was established to assist road and transport agencies in improving the security and integrity of vehicle registration and driver licensing systems. The strategic priorities are:

- Data integrity – national consistency and accuracy.
- Using technology to improve data security.
- Data exchange.
- Managing access to information.

The task force has escalated efforts to promote the national harmonisation of driver licensing and vehicle registration policy and procedures. As a consequence, the harmonisation of licensing and registration schemes has also become a strategic priority.

During 2007-08 the task force completed the following projects:

- Finalised the Memorandum of Understanding and associated schedules for the Smartcard Licence Interoperability Protocol (SLIP). The purpose of SLIP is to ensure interoperability of smartcard driver licences for Australian jurisdictions which may adopt this technology.
- Investigated and reported on options for greater harmonisation of registration and licensing practices as requested by the Council for the Australian Federation.
- Developed national performance indicators for the delivery of registration and licensing services.
- Investigated and reported on the possibility of removing engine numbers as a vehicle identifier.
- Investigated and reported on the use and application of motor vehicle labels.
- Participated in the progression of the National Identity Security Strategy.

National Exchange of Vehicle and Driver Information System

The National Exchange of Vehicle and Driver Information System (NEVDIS) is a database that provides road agencies with access to all registered vehicles and licensed drivers in Australia. It was implemented in an effort to reduce licence fraud, vehicle theft and vehicle fraud. The RTA supports the NEVDIS Administration Unit under the Memorandum of Understanding between Austroads and the RTA.

In 2007-08, the RTA achieved the following:

- Upgraded the pilot document verification service system with improved name matching capability.
- Implemented the regular execution of data cleansing to enhance the ability of NEVDIS to support the 'one vehicle – one Vehicle Identification Number' principle.
- Developed enhanced name searching software to improve the ability of NEVDIS to support the 'one person – one licence' principle.
- Established a contract with an information broker to supply vehicle data to insurers. A major objective of this initiative is to reduce motor vehicle fraud.
- Progressed negotiations with Centrelink on the vehicle checking system project to support the AusIndustry LPG conversion grants scheme.
- Supported the SLIP project.
- Supported the Federal Government to complete a scoping study for the automated number plate recognition project that aims to enhance the ability of police to detect criminal activity that involves the use of motor vehicles.
- Progressed the Federal Government Personal Security Register to ensure written off and stolen vehicle information is provided as part of future vehicle financial encumbrance checks.

Vehicle Identification and Inspection Unit

The Vehicle Identification and Inspection Unit (VIU) was established to control and combat fraudulent use of the RTA's registration system to launder re-birthed and stolen vehicles. It conducts inspections on high-risk vehicles in the Sydney, Newcastle and Wollongong areas. Outside these regions, VIU has a monitoring program to detect vehicle re-birthing. Each year the VIU unit issues around 10,500 Vehicle Identification Numbers (VINs).

VIU manages the Written-off Vehicle Register (WOVR), allocation of VINs and the inspection process to identify re-birthed vehicles before registration. The WOVR ensures the compliance of insurers, dealers, dismantlers and other individuals in relation to written-off vehicles, and provides notifications where necessary. The VINs allocation and audit unit within VIU is responsible for the issue of VINs, chassis and engine numbers for trailers, low-volume, imported and rally vehicle types, which are primarily identified by manufacturers and Authorised Unregistered Vehicle Inspection Stations.

*** The Vehicle Identification and Inspection Unit inspects approximately 23,000 vehicles annually.**

The number of written-off vehicles reported to the register has increased by 40 per cent as a result of recent floods in NSW and Queensland and hail storms in Sydney and northern NSW.

Innovations in registries

NSW Maritime Authority transactions

All motor registries now provide a selected range of recreational boat licence and registration services. The following NSW Maritime Authority transactions can be completed at any motor registry:

- Boat and personal water craft licence knowledge testing.
- Payments for renewal of boat registrations, boat licences and mooring licences.
- Changes to vessel details.
- Changes to customer details.

The RTA and the Maritime Authority are co-located at Wagga Wagga and Batemans Bay motor registries and plans are underway for further co-locations. These initiatives improve customer access by providing services in a convenient single location and allowing agencies to share accommodation and utility costs.

Registration reform program

A package of reforms to the RTA's vehicle registration processes was approved in August 2007.

*** The registration reform process changes enhance customer service, remove unnecessary fees and transactions, and provide more efficient online services.**

The registration reforms include:

- A single registered operator (person or corporation) for all vehicles. This ensures effective enforcement of traffic, road transport and other laws, including toll collection.
- Extension of the vehicle inspection exemption – most new vehicles do not need an inspection until they are five years old (extended from three years).
- Longer term registration, allowing major fleet customers to register vehicles for two or three years.
- Redesign of the registration certificate.
- Streamlining registration codes.
- On-line dealers being able to print full registration labels.



Easier online services for registration.

Online services

Expansion of online services

The expansion of online services continued in 2007-08 and included the following:

- Further expansion of the online council agency network.
- Further enhancements of the dealer use online system.
- Pre-enrolment for the Intelligent Access Program with more than 78 per cent of transactions performed online at June 2008.

The RTA increased the number of transactions which can be completed online in 2007-08. Transactions completed online increased from 15.5 per cent at the end of June 2007 to 23.6 per cent by the end of June 2008. This volume includes approximately 26 per cent of registration renewals.

Customers can go to myRTA.com at any time to renew vehicle registrations, order customised number plates, book a licence test, change address details and check demerit points.

RTA website

The RTA website recorded more than 16 million visits, a 17 per cent increase on 2006-07. The site continues to maintain its unrivalled position as the most visited NSW Government website, the most visited State and territory government website and the sixth most visited Federal Government site.



The RTA website continues to expand its online services and continued to be the most visited NSW Government website.

Motorways website

The motorways website at www.sydney-motorways.com.au provides the public with information about Sydney's motorways, including entry and exit points and toll costs. In 2007-08 there were more than 190,000 visits to the website and more than 67,000 toll calculations. The majority of visitors to the site arrived there directly by typing the URL, indicating that there is strong awareness of the site.

myRTA.com

The myRTA.com page recorded more than two million visits, a 43 per cent increase on 2006-07. A new design for the myRTA.com homepage was launched in March 2008 to provide more visual links to the services provided. A range of marketing activities were undertaken including a radio campaign that promoted online registration renewal and a print and online advertising campaign that promoted online address change. The address change campaign delivered a 12 per cent increase in transactions.

Expanded e-Safety Check

All light vehicles, unless exempt, require a pink slip inspection to report on vehicle safety. Pink slips are issued by Authorised Inspection Stations and prove that a vehicle has passed the required safety standards.

In 2007-08, the RTA implemented a number of measures to increase the number of pink slips sent to the RTA electronically by Authorised Inspection Stations.

As of June 2008, 100 per cent of eligible pink slips were sent to the RTA electronically.

e-Permits

In 2007, an online facility was launched for transport operators who require special permits to move oversize or overmass loads. These loads can range from houses through to major pieces of industrial plant and mining machinery. The RTA continues to process around 30 per cent of special permit applications online.

New plate styles – online auction

The RTA followed up its successful 2006 number plate auction with another popular numeral-only number plate auction that included, for the first time, the chance to bid on numeral-only motorcycle plates. The auction raised \$2.1 million for road safety funding.

The RTA continued to offer new styles of number plates to the general public with the release of NRL coloured number plates in March 2008. Limited edition Centenary of League NRL number plates were also released to commemorate the 100th anniversary of Rugby League in Australia. These limited edition plates were sold in an online auction, raising more than \$350,000 for road safety funding.

The total income from the sale of number plates was more than \$73 million, all of which is to be directed to road safety initiatives.



Launch of the NRL number plates at Parramatta Stadium. Parramatta Captain Nathan Cayless and Coach Michael Hagan, March 2008.

Stakeholders

National Transport Policy

At the February 2008 Australian Transport Council meeting, NSW was given the task of managing, coordinating and developing an 'Economic Framework for an Efficient Transportation Marketplace' (Transportation Marketplace) as part of the multi-jurisdictional development of the National Transport Policy Framework.

The economic framework is the first step towards delivering the goal of a seamless national transport marketplace that will allow better signals for the efficient, productive, safe, sustainable and timely provision and use of transport infrastructure and services.

These national reforms aim for a more consistent approach to the regulation of different transport modes.

This goal will be achieved when:

- Freight and services logistics systems are integrated across modes and operate efficiently and competitively with only necessary and nationally consistent regulation.
- People can access employment and the services and community resources they need safely, reliably and routinely without undue delay because of urban congestion or lack of public transport.
- Transport systems are planned, built, operated and regulated to minimise their impact on the environment and energy consumption.

A new National Transport Policy (NTP) Secretariat was subsequently established within the RTA to provide support for the Transportation Marketplace Working Group. It will also lead developments in national transportation policy initiatives, including heavy vehicle issues.

The NTP Secretariat will:

- Engage a small taskforce of independent experts to provide strategic guidance to the development of the economic framework.
- Review the functional arrangements and approaches applied in the provision and regulation of road, rail and intermodal transportation infrastructure and services.
- Develop the business functionality requirements needed to support the operation of incremental pricing schemes across Australia and, if required, undertake a tender to engage an organisation to provide such business support.

Mock court for Intelligent Access Program

A mock court was held in March 2008 at the Glen Innes Local Court to road test new legislation and evidence kits for the Intelligent Access Program (IAP). The IAP represents a new approach to the management of heavy vehicle access and compliance, using satellite technology to remotely track vehicles. This event resulted in useful feedback for the IAP and strengthened the RTA's relationship with key stakeholders.

Community consultation on infrastructure projects



Pambula River Bridge opening.

A major function of the RTA is construction and maintenance of roads and bridges throughout NSW. The range of stakeholders involved in RTA work includes individuals, private organisations, special interest groups, local communities, road transport groups, local councils and State and Federal government agencies.

The RTA's 2008 *Community Involvement and Communication Resource Manual for Staff* notes the RTA's goals are to:

- Enhance transparency and public accountability.
- Ensure decision making is inclusive of diverse community ideas and opinions.
- Ensure strategic planning, project development and service delivery meet 'the balance of community' needs and expectations.
- Generate organisational efficiencies based on collaborative decision making and enhancement of public trust.

Consultation is tailored to each project and what the local community wants to do. Tools can include:

- Provision of information, such as community updates, advertisements, displays, notices, website information.
- Discussions, such as community information evenings, workshops, shopfronts, household and business meetings.
- Submissions, such as faxes, emails, correspondence and telephone contact lines.

In 2007-08, local communities were involved in more than 200 different construction and maintenance projects. This involvement included:

- About 12 different community focus or liaison groups that meet several times to resolve issues.
- More than 230 community meetings, workshops and briefings to stakeholders.
- About 95 displays, of which there were 62 staffed community information sessions.
- About 520 community updates and household letters were prepared and distributed.
- Other community events hosted, such as celebrations of completed work, or road or bridge naming events etc.

These figures do not include the regular meetings between RTA staff and individuals, such as property owners, to discuss projects.



Community information session at Birkenhead Point Shopping Centre, December 2007.

Other community involvement

The relationship between the RTA as service provider and the NSW community is a dynamic one.

- * The RTA seeks community feedback and input to its service delivery through both formal and informal channels.

This relationship includes:

- Consumer or stakeholder complaints, correspondence and inquiries.
- Media liaison.
- Marketing and promotion.
- Product and service launches and openings.
- Research via tools such as surveys or focus groups.
- Meetings and representations.

APEC



A team of staff, including Chief Executive Les Wielinga, meet at the start of APEC to oversee the operation.

The Australia Pacific Economic Cooperation (APEC) Forum, held in Sydney during September 2007, represented the RTA's largest traffic management task since the Sydney 2000 Olympics. To ensure security arrangements for 21 world leaders were accommodated, the RTA managed a significant number of traffic changes across Sydney between 1 and 11 September including road closures, special access arrangements and special event clearways.

The huge variety of work needed to plan and prepare for APEC meant that staff from across the RTA were involved, spending more than 9500 hours on planning for the event. From managing traffic signals to traffic emergency response, advertising of road closures and clearways, to producing maps for use by all State government agencies – RTA staff were busy making sure things ran smoothly.



RTA staff maintain the APEC barricades outside the NSW library.

The RTA:

- Installed more than 12,000 special event clearway signs in the lead-up to APEC.
- Displayed messages on 129 permanent and 70 portable variable message signs throughout APEC.
- Distributed 10,000 postcards and 230,000 letters to residents, businesses and motorists explaining special event clearways.
- Ran advertisements in 11 suburban and 11 ethnic newspapers where key traffic arrangements were in place.
- Answered more than 700 calls each day (on average) on the Transport Information Line.
- Distributed almost 20,000 transport guides through motor registries.
- Received more than 289,000 visits to APEC traffic information pages on the RTA website.

Future challenges

- Implement further reforms to vehicle registration (including online heavy vehicle registration renewal and online vehicle transfer).
- Expand the electronic business model of the Authorised Inspection Station scheme to complete the transition to a fully electronic scheme which will include electronic blue and brown slips and defect notice clearance.
- Enhance the Mobility Parking Scheme and associated enforcement.
- Develop best practice security for business applications including:
 - The trial of facial recognition technology.
 - Participating at a national level in the development of registration and licensing reforms.



REVIEW OF OPERATIONS

Governance

Governance

The RTA ensures that its investment and its people are aligned to its vision.

Governance of the RTA

The RTA is one of Australia's largest asset managers and service providers, with a multi-billion-dollar budget serving millions of customers and stakeholders. For this reason, the RTA seeks to uphold the highest standards of corporate governance, coupled with sound strategic planning across its business.

This chapter details activities by the RTA in the past year to strengthen corporate governance in relation to:

- Finances, including business opportunities, accountability and performance.
- Organisational factors, including planning and risk management, performance management, operational and information systems and the reporting framework.
- RTA staff, including developing a high performance culture, workforce capability, diversity and equity and Occupational Health and Safety (OHS).

For more information about corporate governance, including the organisational structure, see page 7.

Section cover image: Photo taken by RTA photographer Geoff Ward of RTA Chief Executive Les Wielinga addressing RTA staff at a Blueprint presentation.

Organisational governance

Corporate governance

Executive

The Chief Executive, seven Directors, General Counsel and General Manager Environment form the Executive of the RTA.

The Chief Executive is accountable to the Minister for Roads and Parliament for the RTA's overall performance and compliance.

The RTA Executive supports the Chief Executive in ensuring effective governance of the organisation and has collective responsibility for key functions related to organisational strategy and performance. The Executive meets to discuss operational issues on a weekly basis with meetings to discuss policy and strategy held once a month. Executive Committees manage a number of key issues within the RTA. Each committee comprises directors and key managers from across the organisation to ensure an integrated approach to the management of these issues.

TABLE 11. EXECUTIVE COMMITTEES

Legislation	To oversee the RTA's legislative program including: <ul style="list-style-type: none"> • Developing and reviewing organisational priorities for legislation. • Coordinating cross directorate legislative proposals. • Monitoring and reviewing legislative proposals. • Providing advice to the Chief Executive on legislative matters.
Road safety	To review the RTA's development and implementation of road safety strategy, policy and initiatives, including: <ul style="list-style-type: none"> • Leading the development and integration of road safety culture and ensure effective coordination of road safety initiatives across Directorates. • Developing and implementing a Communication Plan that will convey road safety priorities to the whole of the RTA. • Reviewing the RTA's road safety performance and assessing the extent to which RTA delivered and sponsored projects and programs are contributing to road safety outcomes. • Reviewing the Road Safety Impact Statement for the RTA's annual Road Maintenance Plan and Traffic Management Plan. • Overseeing the development and implementation of specific road safety initiatives. • Determining the road safety priorities across the State. • Reviewing road safety objectives and targets set out in regional business plans. • Reviewing the contribution that major projects make to achieving road safety benefits. • Reviewing the NSW road toll including crash factors and trends. • Overseeing research activities.
Environment	To review the RTA's environmental performance and provide strategic direction on programs and policies, including: <ul style="list-style-type: none"> • Leading continuous improvement of the environmental culture across the RTA. • Reviewing environmental performance and advising on priorities for allocation of environmental resources. • Leading the review of policy and contractual implications of serious environmental incidents. • Ensuring effective coordination of performance improvement strategies, environmental policy and incident management across the RTA. • Monitoring the implementation of the RTA Environment Strategic Plan.

Commercial business and technology	To provide leadership and agree on strategies to identify and focus effort on the commercial activities and technologies which are critical to the success of the RTA, including: <ul style="list-style-type: none"> Overseeing the development of commercial opportunities. Ensuring that RTA research and development activities and technology strategies take account of national and State policy directions and the work programs of other agencies and jurisdictions. Reviewing and recommending strategies and priorities for technology development and investment including the IM&T Strategic Plan and the ITS Strategic Plan. Monitoring and reviewing the implementation of technology strategies, plans and the realisation of benefits from technology investments.
Audit and risk	To oversee the development and implementation of financial and other risk management controls and strategies, including: <ul style="list-style-type: none"> Risk management strategies and programs including the Corporate Risk Register and Risk Profiles. Internal and external audit activities and programs. Corruption prevention and investigation activities. Internal and external financial reporting; including annual financial statements and reporting against the Results and Services Plan.
Finance strategy	To set the direction of the RTA's financial strategy, including: <ul style="list-style-type: none"> Assessing the allocation and/or reallocation of funding for priority programs. Formulating the organisation's finance strategy including setting of bottom line targets, approving operating and capital projects and allocating internal budget funds in accordance with the RTA's priorities. Developing financial governance arrangements. Monitoring the expenditure of funding against approved budgets. Monitoring the realisation of benefits from organisational reform initiatives. Managing processes including financial planning, budgeting, project estimating and performance reporting. Reviewing forward programs for both State and Federal funds.
Workforce and reform	To coordinate and facilitate a strategic approach to organisational efficiency, workforce development and renewal, including: <ul style="list-style-type: none"> Overseeing the Business Reform Program including setting priorities and reviewing project progress and outcomes. Recommending priorities for the development and implementation of strategic workforce initiatives. Monitoring the implementation of the Workforce Capability Plan. Providing advice to the Chief Executive and Executive on options for addressing significant workforce related matters. Establishing and reviewing organisational priorities for Learning and Development including consideration of applications for financial assistance for identified tertiary courses. Evaluating the effectiveness of relevant strategic workforce initiatives and policies.
Occupational health and safety	To review the RTA's occupational health and safety (OHS) performance and provide strategic direction on OHS programs and policies, including: <ul style="list-style-type: none"> Review of OHS performance and advice on priorities for allocation of OHS resources. Review of serious incidents. Ensuring effective coordination of risk management, OHS policy, claims and management across the RTA. Monitoring of the effectiveness of the implementation of the RTA OHS Strategic Plan.
Major projects	To consider and endorse the scope of major development projects. All development projects with an estimated cost of \$10m or more and major traffic management projects or other sensitive projects as determined by the Chief Executive are reviewed by this committee.
Network	To advise and support the development of road management plans for key links across the network.

Executive appointments and remuneration

The Minister for Roads is responsible for approving the Chief Executive's appointment and contract, and for determining remuneration.

The Chief Executive approves senior executives' appointments and contracts. The contracts have a term of up to five years and include annual performance agreements. The Chief Executive determines the remuneration of senior executives in accordance with determinations issued by the Statutory and Other Offices Remuneration Tribunal. For additional information on executive appointments, remuneration and performance refer to Appendix 4.

Business improvements

Business reform

The Business Reform Program was established in 2004 to drive improvements to organisational performance and ensure the RTA delivers integrated, efficient and customer-focused services. The program has been progressively reviewing the RTA's business to identify key areas for improvement.

The program is designed to progressively build organisational capability in critical areas and ensure best alignment of organisational resources and processes to strategic community outcomes. Initiatives during 2007-08 included:

- Completion of new organisational arrangements in the Engineering Technology Branch in support of a new operating model established in 2006-07. The arrangements will ensure that the RTA has long-term access to core skills in the key technical areas of road design, bridge engineering, survey, pavement design and geotechnical engineering.
- Establishment of the NSW Centre for Road Safety to undertake research, develop policy options, deliver behavioural change strategies and provide leadership on road safety issues. The RTA's Business Reform Branch managed the centre's establishment and ensured that it had the capabilities to fulfill its role. The centre began operation on 1 January 2008.
- New organisational structure and management arrangements were introduced for the Strategic Network Planning Branch within Network Management Directorate. The purpose of the Strategic Network Planning Branch is to lead network and corridor planning across the RTA, coordinate the setting of road standards, contribute to integrated land use and transport planning and advise on forward funding allocation to infrastructure programs.

- Infrastructure Maintenance Branch was realigned to better enable it to lead road infrastructure asset management for the RTA, develop strategies, policies and standards for maintenance of RTA road-related infrastructure assets and to manage the delivery of the RTA's Infrastructure Maintenance Program.

Integrated Management System

The Integrated Management System (IMS) is the RTA's overarching information system, incorporating financial, project, environmental and human resources systems. In 2007-08, the IMS continued to support key corporate initiatives and projects such as the extension of Employee Self Service and a time-sheeting/internal billing system which was rolled out to more than 3000 employees. Other key initiatives completed within the year included:

- An OHS and Environment Incident Reporting System to replace the earlier legacy solution, which enables staff to report incidents via the intranet.
- Upgrade of the RTA's vendor online banking solution in line with a new whole-of-government contract.

The key focus for the IMS over the year was planning for the upgrade of SAP software which was completed in February. The upgrade work began in June 2008 and is expected to be completed by December 2008.

Voice Over Internet Protocol

The RTA largely completed an upgrade of its voice equipment, which had been up to 15 years old and beyond its economic life. The upgrade was completed apart from a small number of sites, which are to be upgraded by September 2008. The new technology is a firm foundation for future improvements to the communications systems.

Information Technology benchmarking

Benchmarking of the RTA's Information Technology (IT) services has resulted in considerable cost savings and improvements in 2007-08. The total engagement cost of Desktop and Support Services was reduced by \$4 million over the past 12 months. The RTA and contractor Fujitsu, which has provided infrastructure services to the RTA data centre since winning a public tender in 2004, have implemented improvements to reduce data centre costs by up to \$1 million per year. The recent benchmarking study also showed continuing increases in cost savings, customer satisfaction and staff morale.

DRIVES realignment project

DRIVES is the core IT system used to manage driver licensing and vehicle registration across NSW. DRIVES is one of the largest systems of its kind in the world and is now more than 16 years old. Faced with a replacement cost of more than \$100 million, the RTA has embarked on an extensive annual enhancement program to restructure parts of the DRIVES system. This is expected to extend the life of DRIVES by more than 10 years and will make it easier to maintain and support service delivery.

Approximately 40 per cent of targeted areas of DRIVES have been restructured with the assistance of a number of vendors. This initiative also includes improvements to development tools and processes to further reduce maintenance and development costs.

IT security accreditation

In continuing to enhance the security of customer information, the RTA successfully audited three areas – the Transport Management Centre, the RTA Contact Centre, and Information Management and Information Technology. The audits were to ensure compliance with the international information security standard ISO 27001. The standard requires that risks to information be managed to reduce the likelihood of breaches of confidentiality, compromises in integrity or system failures which prevent access to information. The RTA also continues to improve its compliance with the Payment Card Industry Data Security Standard.

Corporate data warehouse

A new corporate data warehouse will improve access to information by enhancing the ability to query and analyse data. The data warehouse will contain data from the databases of corporate systems, and other sources where appropriate, to deliver better integration, access and consistency.

Initial adopters of the warehouse include management information for the RTA Compliance and Freight Strategy Branch, for example, in looking at traffic volumes. More applications are expected to take advantage of the new corporate data warehouse functionalities during the next 12 months.

Office relocation

After 12 months of planning, more than 600 RTA staff based in Blacktown were moved to the RTA's new Argyle Street office in Parramatta. The Argyle Street office has a contemporary open plan design to provide a flexible and efficient work environment. More importantly, the building is a 'green' office, with environmentally-friendly features and energy-saving design.

Risk management

The RTA has a well-established, enterprise-wide corporate risk framework and system. This approach allows the systematic and consistent identification and assessment of the major risks for each area of the RTA's business operations and for the organisation as a whole. Risks are managed and regularly reviewed at all levels as part of business management and performance reporting systems and processes.

Internal audit

The Governance Branch provides a high quality, cost-effective auditing service for the RTA. This auditing function is focused primarily on the four areas of high risk to the RTA – licensing and vehicle registration management, information technology, engineering, and financial and operational aspects.

Licensing and registration

Regular audits were conducted this year on motor registry operations, other service delivery outlets, back offices supporting licensing and registration, and external organisations' access to information. The risk management framework for dealing with the exposures in these operations is continually reviewed to ensure controls remain effective and appropriate. Outcomes of investigations and other reviews are incorporated into the auditing programs, where appropriate, to ensure any additional risks highlighted are adequately addressed.

IT

IT audits undertaken this year covered newly purchased and installed systems, systems under development and, to a limited extent, those in production. IT security and e-commerce audits focus on aspects of operating systems such as access and permissions security.

IT audit staff maintained membership of a range of steering committees and working parties to enhance their focused on critical IT processes and systems, IT security and e-commerce, IT infrastructure and the provision of risk/control advice. In addition audit and risk staff worked closely with business units on risk assessments of new IT initiatives and system purchases and developments.

Engineering

The review of major engineering programs and systems continued to be the main focus.

Major reviews undertaken included:

- Hume Highway Northern Alliance.
- Road safety audit systems.
- Cost estimating of infrastructure development projects.
- Product quality audit of the Northern Hume Highway Alliance contract.
- Alliance agreements in maintenance and minor works.

Audits were prioritised based on the identification and analysis of major risks and an assessment of the control environment addressing these risks. In conjunction with line management, audits resulted in the identification of a range of opportunities for improvement to practices.

Finance and operations

The scope of the financial and operational audit program includes the RTA's support functions and certain aspects of the road safety, traffic and other businesses. A range of functions and activities identified as medium to high risk were targeted during the year.

Audit reviews included the accounts payable function at the Sydney Business Service Centre, bank reconciliations, contract reporting compliance, control over unused cheque forms, electronic payment controls, purchasing and invoice policy compliance, salaries payroll, Yennora inventory management, as well as the financial and administrative support functions at selected administration centres. These audits independently assessed both the adequacy with which the risks of selected functions and systems were being managed, and the extent of compliance with the associated key controls.



Risk management: Safety harnesses in the workplace.

Investigations

The RTA performs a range of internal corruption and external fraud investigations. Where appropriate, matters of staff corruption are investigated and outcomes forwarded to RTA senior management for consideration of disciplinary action. Recommendations are made to line management to address any weaknesses or areas of concern relating to risks, policies, procedures or controls.

Fraud committed by community members which impacts on the RTA's licensing and vehicle management business is also investigated. Outcomes of these matters are primarily referred to NSW Police for investigation and prosecution. Where appropriate, these matters are also referred to RTA senior management to address any policy, procedure and control issues identified by the investigations. Matters referred by law enforcement agencies, such as identity fraud and motor vehicle rebirthing, are also investigated.

Corruption risk management

The RTA has implemented a range of initiatives to minimise the risk of corrupt activity by staff and business partners. Highlights during the year included:

- Development of a 'Probity Plan' template which must be used by staff involved in the procurement of goods and services worth more than \$150,000.
- The delivery of Ethics Seminars to 160 senior officers by leading business ethics academics and consultants.
- Conducting probity seminars with new and existing staff to reinforce the corruption-resistant culture of the RTA.
- The provision of corruption information through the RTA's intranet.
- Provision of advice to staff and management on a broad range of corruption risks and ethical, probity and policy issues.

Financial governance

Financial strategy

The RTA continues to review and improve its financial strategy and management tools to deliver cost-effective programs and services to the community of NSW.

A strong emphasis remained on enhancing business efficiency and risk management across all RTA operations. The Finance Strategy Committee continued its governance role, including the direction of funding allocations and review of program and resource budget performance. The work was supported by four programs, outlined below.

Policy and procedure review

An ongoing review and update of financial policies and procedures is conducted to ensure that the RTA has a robust financial management framework to mitigate risk and to support RTA statutory and business requirements. The rollout of 39 policies, procedures or guidelines was supported by communications and training strategies that addressed areas such as procurement, accounting, budgeting and forecasting, and data security regarding RTA's Information Management System.

Dashboard

The 'dashboard' was introduced in the 2006-07 financial year to provide senior managers with key RTA financial performance data in a user-friendly format. The program was reviewed to ensure that it continues to provide business critical advice to directors and senior management to aid key decision-making. Following the review, the dashboard was refined and enhanced to ensure it continues to provide a single reference, consistent reporting and monitoring of data. This refinement will continue to ensure the dashboard remains a relevant and useful tool.

Integrated Management System

The Integrated Management System (IMS) is the RTA's key financial and corporate system. The system supports RTA programs and services as well as employee and HR related services. Planning was undertaken to upgrade the IMS to a new version to improve the efficiency of business processes. The technical upgrade began in June 2008 and is expected to be completed by December 2008.

State Plan framework

The NSW State Plan guides RTA's activities. The RTA developed a financial framework to monitor expenditure against State Plan priorities for which the RTA is a lead or partner agency. The RTA tracks initial budget allocations to these priorities as well as movements in the budgets, together with the reasons for any changes. Actual expenditure is closely monitored.

Strategic investment

Sound strategic investment decisions are fundamental to the development of a strong, sustainable road system for NSW. The priorities set out by the NSW State Plan required targeted investment to support program delivery.

The RTA has reviewed its management of current and potential commercial arrangements and implemented a new commercial management framework. Under the framework, commercial business ventures will be evaluated on the basis of their ability to secure or improve future revenue and program delivery. The challenge facing future financial management will be to further enhance business and financial management of commercial ventures in line with financial and program delivery performance indicators.

The investment decision framework has also been implemented as a significant management and analysis tool. The 2007-08 budget has been formatted into the new framework to enhance the capacity of the RTA Executive to review and manage the budget program.

Strategic risk forms an integral component of a robust investment decision framework. A corporate risk management framework continued to be refined.

Corporate card and purchasing card

The RTA's use of corporate credit and purchasing cards has been in accordance with the Premier's memorandum and the Treasurer's directions.

Financial performance

For an overview of the RTA's financial performance in 2007-08, see page 17.

RTA Road and Fleet Services

The RTA's commercial arm – Road and Fleet Services – achieved its best-ever financial results in 2007-08. Road and Fleet Services achieved a record income of \$742 million with a surplus of \$71.2 million due to a strong business environment, increased workloads from higher levels of Auslink funding and alliance works, and improved staff productivity. Marketing of the commercial skills of Road and Fleet Services helped it to secure its highest-ever external business of \$52.4 million.

Other key achievements

Other achievements in the financial governance of the RTA this year included:

- Consolidation of the alliance contracting approach to deliver maintenance and other minor work. The earlier allocation of work and greater involvement in the scoping and development of work resulted in improved resource allocation, efficiency, productivity and delivery. The alliancing approach was also extended to projects won through external tender and to councils.
 - The amalgamation of Western and South West Road Services into the new Country West Road Services was completed to streamline business operations and management structure. The benefits included lower overheads and increased productivity.
 - Development of a new performance-specified maintenance contract to replace the existing long-term contract in the north area of Sydney region. The new contract has revised boundaries, revised scope and a new management approach. The contract has new maintenance and intervention standards which can also be applied across the State-wide road network. Tenders for the contract have closed and the contract is expected to be operational in October 2008.
 - Revised the organisational structure of the three 'Principal Engineer' groups in the RTA's Engineering Technology Branch. The realignment was aimed at creating a centre of engineering excellence in bridge engineering, road design, pavements and geotechnical engineering.
- Reduction in maintenance costs of steel truss bridges through an innovative cross girder/stringer fatigue solution on Kempsey Bridge. The solution also significantly reduced the time to implement the work.
 - Economic pavement design for low-use roads by reducing sub-base thickness while retaining pavement life leading to reduced construction costs and less impact on traffic.
 - Reuse of material including a reduction in revegetation cost by reuse of stripped topsoil, salvage of stabilised layer as select fill and construction of batters from excavated drains and subgrade spoil material.
 - Use of coarse rock drainage layer as a foundation to roadwork at the Norton's Road project, eliminating soft soil risks and accelerating construction of earth work.
 - Trial of a new sacrificial cathodic protection system on Boyds Bay Bridge, resulting in cost savings for installation and minimisation of maintenance costs.
 - Alternative traffic management designs resulted in reduced traffic management costs, less impact on the environment and reduced traffic disruptions.
 - Savings due to use of alternate materials, such as use of Fric Seal as an alternative to the more expensive graded solutions, and use of foam stabilisation as an alternate to a granular overlay.
 - A number of productivity gains were realised through improvements to designs, including:
 - Replacement of the raised median design on the Avoca Drive upgrade with wire rope, which eliminated the use of median pits and resulted in project savings.
 - Construction of a third lane using the existing formation width on the Boolooroo Pavement rehabilitation project.
 - Use of a wire rope safety barrier instead of extending culverts on the Boulder Road widening project.
 - Modification of the drainage design on the Walang East rehabilitation.

Our people

A safe and healthy workplace

Occupational Health and Safety statement

The RTA is committed to providing a safe and healthy workplace and eliminating conditions or hazards that could result in personal injury or ill health. Workplace health, safety and welfare in road and traffic operations are always given precedence over production demands.

The Executive and senior management provide leadership that supports and enables the vision of a safe workplace. This leadership facilitates a positive engagement with the workforce that encourages a strong safety culture, enhancing the safety and well-being of RTA staff.



Workplace safety.

Policy and commitment statement

An annual review of the RTA Occupational Health and Safety (OHS) Policy statement has confirmed the RTA's commitment to providing leadership, direction, resources and support, to ensure workplaces are safe and without risk to health. In particular, the policy confirms the RTA's commitment to effective consultation between management and employees on the development, implementation and refinement of the OHS program and seeks the cooperation of all employees to achieve OHS objectives.

Risk management

A risk management approach to OHS continued to be applied to all of the RTA's activities. Executive oversight has been applied where necessary to focus resources on higher

risk activities. Significant OHS risks were addressed in the areas of construction, road maintenance, traffic control, working at heights, working near utilities and effective workplace implementation of OHS policies and procedures. A variety of targeted risk assessment approaches have been applied to these areas including:

- Project 'whole-of-life' risk control documents – a risk assessment at the concept and design stage aimed at improving OHS through better design.
- Environment and safety risk assessment undertaken by stakeholders for minor projects in the range of \$250,000 to \$5 million, with an OHS development plan for major projects worth more than \$5 million.
- Situational awareness risk assessment to provide traffic signals and maintenance crews with tools to identify and deal with risks encountered during routine maintenance on a site-by-site basis.
- Risk profiles developed by each RTA business area so that hazards can be controlled, reviewed and improved on an ongoing basis.

Road maintenance

The 2008 Safety Summit for Road and Fleet Services managers identified key focus areas, including identifying warning signs of high consequence incidents, improving sub-contractor management, greater use of positive performance indicators and effective management engagement strategies, improved incident management processes and whole of project OHS performance. The summit also committed to improving safety performance through supporting a strong safety culture.

The RTA Road and Fleet Services Branch was the first public sector organisation to achieve certification to AS 4801 and accreditation with the Office of the Federal Safety Commission.

Traffic control at worksites

Improving traffic control at worksites was progressed in 2007-08. Key actions included information sharing by regional working groups of traffic control practitioners, re-evaluation of traffic control training, the development of a tip sheet on working near traffic and working with NSW Police to identify roadwork sites for speed zone enforcement.

Utilities

Utility 'strikes', such as unplanned contacts with underground and overhead electricity, gas, water and telecommunication services, continued to be a major cause of potentially serious incidents. A continued focus on preventing these incidents included the formation of a Utilities Coalition. This approach has resulted in a downward trend for these serious incidents, with only 48 in 2007-08 compared to 57 strikes in 2006-07 and 67 in 2005-06.

Contractor safety

The RTA continues to achieve a high safety performance for its projects and set benchmark standards in OHS management of contractors. The annual contractor safety forum explored organisational mindfulness and its practical effect to drive stronger safety cultures and performance.

The NSW Civil Industry Coalition, which includes key RTA contractors, was established to address the issue of serious incidents in construction projects. The coalition successfully negotiated a number of initiatives including the WorkCover Noise Memorandum of Understanding amongst industry partners, the incorporation of site safety rules into OHS contract specifications, a Safe Work Method Statement review system and revisions to the strategy of managing contact with utilities.

Improvements were made to the traffic control registration scheme to reduce the risks to road workers from traffic. The scheme is now a mandatory condition of contract, alliance business models and single invitation maintenance contracts with local government. Work continues between the RTA and local government to improve OHS performance in road construction and maintenance through desktop audits and monitoring of local councils' maintenance contracts.



RTA staff carrying out an OHS inspection on site.



Dubbo workshop: Ron Bourne, Workshop Area Manager; Kelly Schweida, second year apprentice, and Brendon Foran, fourth year apprentice, talk about their safety experience with the RTA.

OHS program delivery

The RTA delivers its OHS through a central OHS Branch working with regional OHS facilitators, line managers and their staff. This ensures there is ownership of OHS activities within the local workplace. Audits and inspections ensure that each area of the RTA is implementing the OHS management system. Each area is required to complete an annual self-assessment of compliance, with each area of the business recording a near 100 per cent response rate in 2007-08.

An intervention hot spots program works with under-performing units through a program of training, induction and coaching in effectively implementing safe systems of work.

A large number of young workers began work at the RTA this year. To support young worker safety, a program was initiated to raise the awareness of young workers and their managers about the hazards they face and systems for managing these.

Working Together targets

The RTA has performed well above most of the NSW Government's Working Together injury prevention and management targets and complied with all five action areas.

The Working Together reduction targets are the improvements in performance from previous reference years required by the Working Together Strategy.

TABLE 12. WORKING TOGETHER PERFORMANCE – WORKCOVER AS AT DECEMBER 2006

Working Together target	Actual reduction	
	RTA	NSW public sector result
1. Injury prevention – 20%	25%	12%
2. Injury management – 10%		
8 wks	25%	9%
12 wks	24%	8%
26 wks	25%	19%
3. Average claims cost – 15%	52%	19%
4. Suitable duties – 10%	-405%	-15%

* 2006 data is the latest information provided by WorkCover.

The RTA performed above the standard required in targets one to three and its performance was better than the public sector as a whole. Target four has not been achieved by the RTA, nor by the NSW public sector as a whole. This result is caused by an increase in employees unable to be placed in suitable duties increasing from one person in 2005-2006 to six people in 2007-2008 coupled with a reduction in overall claims for weekly benefits of 16.5 per cent which creates a poorer statistical result.

The 2007-08 workplace injury rate was 6.1 per hundred equivalent full-time employees, a 35 per cent reduction from the 2001-02 base year. On current trends this would mean achieving the target of a 40 per cent for 2012 as early as 2009.

The average claims cost for 2007-08 was \$9933, better than the WorkCover target of \$16,012.

***** In 2007, the RTA won a special Treasury Managed Fund Public Sector Risk Management award which acknowledged the RTA's ongoing commitment to improve OHS and injury management within the public sector.

OHS performance reporting

The RTA continued to use forward (lead) and delayed (lag) performance indicators with the introduction of lead indicators for contractors.

EnSafeOnline, the RTA's new online incident reporting and investigation system, was implemented in 2007-08. The system provides staff and managers with desktop access to incident and hazard reporting and new management systems.

Staff health fitness and well-being

The AlphaOne Integrated Workplace Health and Fitness Management Program is a behavioural and organisational change program designed to improve the health, fitness, safety and quality of life of RTA employees. Stage three of the five year program was completed, with 1260 staff at 59 worksites having attended education sessions on specific health issues. Of these, 960 staff underwent voluntary health and fitness assessments.

Analysis of data has enabled improved matching of employee fitness to the task, with a positive manager survey indicating that more than 83 per cent of participants met expectations.

Details of injuries and prosecutions under OHS ACT

OHS incidents

The most significant risks of serious injury to RTA employees and contractors include working in the vicinity of traffic and moving plant, working at heights and utilities. One contractor fatality occurred at a RTA work site. The most common cause of workplace injuries across the RTA in 2007-08 was 'body stressing'.

Prosecutions

There were no prosecutions for breaches of the *Occupational Health and Safety Act 2000* (OHS Act) in 2007-08.

OHS indicators

All OHS indicators have shown an improvement over the past year.

TABLE 13. OHS STATISTICAL INDICATORS

Performance indicator	2006-07	2007-08	Change
Incidents reported	2145	2204	3% increase
Number of compensable injuries (all claims)	473	427	10% reduction
Total claims costs	\$2.6 m	\$2.6 m	no change
Lost time injuries	209	190	9% reduction
Number of workplace injuries	430	412	4% reduction

TABLE 14. FIVE YEAR WORKPLACE INJURY TREND

	2003-04	2004-05	2005-06	2006-07	2007-08
Average number of work related claims per 100 employees	7.7	7.5	7.4	6.4	6.1
Average cost of work related claims per employee	\$480	\$365	\$358	\$332	\$329

TABLE 15. WORKERS COMPENSATION CLAIMS

	2003-04	2004-05	2005-06	2006-07	2007-08
	608	577	548	473	427

Workforce strategy

The RTA, like many infrastructure organisations, is facing increased competition for professional and technical skills and resources. Compounding this issue is an ageing workforce. The average age of the RTA workforce is approximately 45.7 years with 34 per cent of the workforce over the age of 45. This is significantly higher than the NSW population norm of 22 per cent for the NSW Labour Force, according to Ernst and Young findings in the RTA Workforce Analysis, 2007. The RTA's workforce strategy is therefore focusing on attracting and retaining people and skills, enhancing the employment experience for both staff and contractors, developing the technical and people leadership skills of our staff, offering flexible work options pre- and post-retirement and targeting diversity to boost talent supply and knowledge continuity.

***** The RTA workforce is as diverse as the operations and services it undertakes. Staff are performing functions that keep our road transport system safe, sustainable and efficient.

Workforce capability

The RTA workforce is as diverse as the operations and services it undertakes. Staff – including engineers, vehicle regulation inspectors, surveyors, environmental managers, traffic technicians, bridge workers, laboratory assistants, policy specialists, administration staff, emergency breakdown officers, motor registry officers and construction and maintenance staff of all varieties – are performing functions that keep our road transport system safe, sustainable and efficient.

The RTA has strengthened its resources in critical areas such as workforce planning, professional, technical and leadership development, succession management and knowledge management. These moves are in response to increased global competition for scarce roads-based technical skills such as engineers, road designers and surveyors. The RTA has established a Professional and Technical Skills Advisory Board made up of some of the organisation's most talented and senior professionals to oversee and inform the skills development program and advise the RTA Executive Workforce and Reform Committee. A number of initiatives are underway, including:

- The implementation of an enhanced RTA Alumni Program.
- A Knowledge Continuity Program capturing knowledge and relationship information from those retiring and with critical skills.
- An RTA and Engineers Australia Development Program for engineers called e+.
- RTA graduate, apprenticeship and traineeship programs.
- Leadership development.
- Development of RTA Learning Centre.
- Recruitment process transformation.
- RTA careers development strategy.
- Developing workforce strategies for skill priorities in areas such as civil engineering, road designers, traffic and transport management and policy professionals.
- Improving employment branding.

The RTA is proud of the ability and dedication that all staff bring to their work. To ensure the capability of the organisation remains high, the RTA invests significantly in the development of its workforce. As well as investing in targeted employment programs to bring graduates, apprentices and trainees into the organisation and supporting the study of undergraduate students in specific disciplines, the RTA provides generous support for the further studies and development of its permanent workforce. The RTA also invests significantly in Aboriginal Employment Programs, including taking steps to establish a full-time permanent position of Aboriginal Employment Coordinator, reporting to Principal Advisor Diversity and Equity.

About 48 per cent of staff are employed in country locations, with 31 per cent of regional employees being wages staff and some 69 per cent salaried employees. Many RTA motor registry and contact centre employees are engaged in permanent part-time work. For more information about the RTA's staff numbers and status, see Appendices 5 and 6.

Leadership development

The RTA has implemented a Leadership Initiative and Framework as part of its workforce strategy. Developed in response to an ageing workforce and skills shortages, the initiative has provided skills training and support for the top 60 leaders and managers throughout the RTA. Over the next two years, the initiative will extend its work to support future and developing leaders and managers.

As part of the leadership strategy, the RTA has adopted a leadership framework that reflects the organisation's core values and the key behaviours needed to drive the RTA's leadership and management capability. An online assessment tool and coaching has been implemented to gather objective information and benchmark senior executives and managers. This assessment is being used to improve leadership development, assist with recruitment and ultimately provide a mechanism for succession planning.



Leadership forum at the Powerhouse Museum, guest speaker John Prescott, June 2008.

Workplace innovation

As well as concentrating on building the workforce of the future, the RTA has implemented initiatives to improve the work environment. The RTA supported innovation in workplace practices and processes through management and staff development, internal communication, employee health awareness and development, diversity and equity initiatives, and improved workplace conduct support.

Teleworking

The RTA encourages teleworking to facilitate flexible work practices that enable staff to balance their work and personal commitments.

Teleworking reduces vehicle kilometres travelled and car dependency, and improves air quality.

The RTA facilitates workshops on the implementation of sustainable travel initiatives including teleworking. It also continues to promote the benefits of teleworking to government agencies and business via manuals, meetings, forums and the internet.

The RTA provides opportunities for staff to telework on a regular or needs basis. Staff have access to telecentres in Penrith and the Central Coast, and hot desks across the organisation, as well as teleworking from home.

Targeted recruitment programs

The RTA's employment programs target the recruitment of graduates, trade apprentices, trainees and para-professionals and provide both financial support and work experience to undergraduate university students. These initiatives are designed to help address the RTA's future workforce capability needs.

Apprentices

The trade apprenticeship program rotates apprentices between workshops and worksites across NSW to ensure they gain exposure to a broad range of skills and experiences. In June 2008 the RTA employed 65 trade apprentices. In 2007-08 the RTA recruited 19 apprentices across a range of trade classifications including electricians, painters, bridge and wharf carpenters and plant mechanics.

Traineeships

At 30 June 2008, the RTA employed 104 trainees. The trainees are working towards the attainment of a variety of Vocational Educational and Training qualifications. Traineeships are located in the RTA Contact Centre, regional offices, administration centres, motor registries and other RTA functional centres.

Graduate Recruitment and Development Program

At 30 June 2008 the RTA had 128 graduates participating in the Graduate Recruitment and Development (GRAD) Program. The graduates represent a range of disciplines such as chemistry/material science, urban design/town planning, transport planning, policy, traffic and transport engineering, computer systems engineering, land economics, environment and community liaison. Over recent years, the GRAD program has consistently averaged a retention rate on program of 97 per cent.



Graduate conference, July 2007.

Undergraduate scholarship, rural cadetship and para-professional programs

The RTA's Undergraduate Scholarship Program encourages university undergraduates to consider careers in the roads industry. At 30 June 2008, the RTA had 112 undergraduates in the program studying disciplines such as civil engineering and surveying. Sixteen of the 112 undergraduates were employed in the RTA's Rural Cadetship Scheme. This scheme targets undergraduates from rural NSW. In addition to the Rural Cadetship Scheme, more than 60 per cent of all scholarships offered by the RTA are awarded to students from regional areas. This commitment aims to attract engineering and related professions back to rural locations to work upon completion of their undergraduate degree.

✳ At 30 June 2008, the RTA had 112 undergraduates in the undergraduate scholarship, rural cadetship and para-professional programs studying disciplines such as civil engineering and surveying.

The RTA's para-professional program is proving very successful in generating a renewable pool of talent for critical technical skill areas. There were 24 participants in the program that combines on-the-job experience and a course of study through the University of Southern Queensland at an Associate Diploma level.

Capability in trades and non-trades grades

Competency-based assessment continues to underpin an enterprise classification structure for trades and non-trades wages staff in the RTA Road and Fleet Services business. The Wages Classification Structure Assessment Project is a key mechanism in maintaining a responsive and capable operational workforce. This project ensures the competency of staff who are upgrading their skills for new positions.

New staff entering the RTA's road construction and maintenance workforce, including apprentices and trainees retained after the completion of their training in civil construction, are also assessed. This project is an example of how the RTA encourages staff to develop multi-disciplinary skills and cross-train in the wages staff grades, allowing for flexible deployment and greater productivity gains at the grass-roots level.

A new plant operator safety certification system of competency-based training and assessment was developed and implemented. This system ensures compliance based certification of staff working with mobile plant and construction/maintenance machinery.

Staff training and education

The RTA is a leading provider of technology, professional and technical skills in many areas including road safety, traffic management, road and bridge building and maintenance. To maintain and grow its capability, the RTA supports on the job and formal training delivered by RTA technical experts or external specialists. During 2007-08, 5199 staff attended a total of 3322 approved training courses at a cost of \$2.25 million (excluding GST). Technical, OHS and environment training accounted for 66 per cent of the training delivered. Continued arrangements outsourcing training vendor management achieved a saving for the RTA of \$182,074 for external programs.

Procurement plan training was provided to 455 staff who have a role in tendering work for the RTA. The training aims to ensure probity in the awarding of tenders. The environment was another key focus area for 2007-08. Training in environmental responsibilities for erosion and sediment control was delivered to 441 staff and noise management training was provided to 136 staff.

A suite of suggested staff development options, including on-the-job experience, internal training and external training, has been identified for a range of critical technical capabilities.

The RTA is embracing opportunities for e-Learning to provide flexible options for staff development. This complements formal training initiatives and in 2007-08 e-Learning programs were developed in the technical and OHS areas.

Sponsored programs

The RTA sponsors many of its staff to undertake postgraduate qualifications across a range of disciplines to ensure continued capability across all functions. Sponsorships were approved in the following postgraduate qualifications:

- Master of Technology in Pavements (CPEE).
- Master of Engineering in Pavements (CPEE).
- Advanced Certificate in Transport and Traffic Management (ITLS).
- Master of Transport Management.

Staff orientation

The RTA continued to deliver its formal orientation program. The program includes an increased focus on the role, responsibilities and achievements of the RTA, and was delivered to 141 new staff during the year.

Internal communication

Internal communication is a priority at the RTA. However, with 6929 staff spread across NSW – including in 180 offices and 129 motor registries, and a diverse workforce both in age and professions – it doesn't come without its challenges.

There are three main communication tools the RTA uses to engage staff, including:

- A monthly brief from the Chief Executive which provides managers with a framework to discuss business priorities with their teams.
- A monthly staff magazine called *Momentum* which highlights key achievements and activities with the organisation.
- Regular news items on the organisation's intranet site that promotes dialogue with staff.

The organisation also adopts road shows for key organisational announcements such as for the launch of its new Corporate Plan, *Blueprint*, where the Chief Executive visited staff in all regions across NSW to ensure they understood the vision and key priorities of the business. Video clips are also placed on the intranet at times for key projects.

The challenge for the organisation going forward will be adopting communication tools and channels that meet the needs of the changing workforce over the coming years.

External panels

The RTA participates in a number of external panels to influence workforce capability agendas in the industry and public sector.

NSW Premier's Capability Taskforce

The RTA is a significant public sector employer and plays a major role in many of the NSW Public Sector Workforce Strategies. The RTA has participated in strategies to address accounting and engineering skill shortages and to improve the attractiveness, as an employer, of the public sector in general. The RTA will continue to play a major role in the development and implementation of public sector workforce strategies as part of the NSW Premier's Capability Taskforce, particularly as they apply to key infrastructure areas.

Austrroads Capability Taskforce

The RTA contributes to work to ease the workforce capability pressures shared by road infrastructure organisations across Australia and New Zealand through its membership of this peak industry body. This forum is particularly utilised for achieving outcomes that involve raising the profile of the industry rather than the individual profile of just one agency.

Code of Conduct and Ethics

The RTA required all staff to attend a presentation on its Code of Conduct and Ethics, in accordance with the principles of good governance. Fifty-five RTA staff were trained as presenters to deliver the one-hour interactive presentation, which will be attended by all staff including permanent, temporary and contract staff.

The presentation was developed by staff from the HR Workplace Practices Unit which also develops and presents information sessions on a number of conduct-related matters. In addition to the 2008 Code of Conduct and Ethics presentation, 2951 staff attended 204 information sessions on:

- Appropriate internet and email use.
- Managing unsatisfactory performance and conduct.
- Grievance resolution.
- Harassment, discrimination and workplace bullying.

In 2007-08, the RTA also rolled out a Mental Health Awareness session for all managers. The 26 interactive sessions were attended by 510 managers and supervisors.

The HR Workplace Practices Unit is also responsible for a range of measures including conflict coaching, to encourage resolution of disputes as close as possible to the point of origin. Where this is not possible, staff also have access to a panel of expert mediators. In 2007-08 there were 28 facilitated discussions or mediations. The vast majority of disputes were resolved to the satisfaction of the parties concerned.

Staff awards

The RTA Staff Awards have been running for more than 10 years. The awards recognise excellent performance in areas of critical importance to the RTA and provide an opportunity to acknowledge and reward staff who have made an outstanding contribution.

An awards presentation ceremony was held on 16 November 2007. The event was attended by the Minister for Roads who presented the 23 awards to a record number of 208 winners. Winners included staff from nine regional and eight metropolitan work locations.

Staff achievements

RTA staff have received a number of accolades both individually and within teams. They have produced many innovations within the workplace. This is recognition of some of these achievements.

- Patricia Bryant, Manager, Road User Safety, won a Practitioners Award at the Australian Road Safety Research, Policing and Education Conference for her paper on the Sober Driver Program.

The Sober Driver Program is an education and relapse prevention program for repeat drink drive offenders convicted of two or more offences in five years.

The evidence-based program has been demonstrated to reduce the risk of re-offending by 45 per cent, making it around six times more effective than comparable programs elsewhere in the world.



Patricia Bryant receives an award for her paper on the Sober Driver Program.

- The Hunter Region Bridge team won a highly commended award in the Newcastle Division Engineering Excellence Awards 2007 and received the Colin Crisp Award for Engineering Heritage for the upgrade of Hinton Bridge.

The Engineering Excellence award, presented by Engineers Australia, recognise organisations who demonstrate innovation, expertise and commitment to engineering excellence. The Colin Crisp award is Australia's most recognised award for excellence in engineering heritage.

Hinton Bridge, which goes over the Paterson River, was originally constructed in 1901. The upgrade resulted in a valuable heritage bridge of State significance being made viable into the future by using more sustainable materials, increasing durability by design and reducing maintenance costs.



The Hunter Region Bridge team collect an award for the upgrade of Hinton Bridge. L to R: Hunter Project Manager Natasha Anderson, Hunter Regional Bridge Engineer Mark Tilley, Project Engineer, Bridge Engineering Srimathi Ediriweera, Hunter Project Services Manager Bob Handley with Julie Hammer, National Deputy President of Engineers Australia.

- NSW Centre for Road Safety and Regional Operations and Engineering Services received a silver award at this year's NSW Premier's Public Sector Awards for 'Delivering Better Services'. The award was for road safety programs for the Pacific and Princes highways.



Premier Morris Iemma with A/Director of the NSW Centre for Road Safety Soames Job and Director Regional Operations and Engineering Services Peter Collins.

- The Hunter Project Management team and Thiess won the 2007 NSW Civil Contractors Federation Earth Awards (Category 4 – Projects between \$20-75 million) for excellence in civil construction for the Five Islands Roads Upgrade.

The team was recognised for best practices employed during construction.

The work has resulted in an attractive wetlands park and a road upgrade which has significantly improved travel times and safety.



Hunter Project Management team collect the award for excellence in civil construction for the Five Islands Roads Upgrade.

- The RTA advertising campaign aimed at curbing young driver deaths 'Pimp our ads' won three prestigious awards at the Caples International Awards in New York.
- The Road Safety campaign 'Speeding. No one thinks big of you' won Campaign of the Year at the national AdNews awards.
- Chris Chant, Albury Registry Services Coordinator, was one of 92 volunteers honored by the NSW Governor for their outstanding life-sustaining service to the community. The Service Medal of the Order was presented by Her Excellency Professor Marie Bashir, Governor of NSW, for 12 years of service with NSW St John Ambulances.



Chris Chant receives The Service Medal of the Order from Her Excellency Professor Marie Bashir, Governor of NSW.

- Dave Young, Manager Land Use Development in Hunter Region, and James Li, an RTA Urban Design/Town Graduate, were recognised by the Planning Institute of Australia for Planning Excellence.

Dave was elected as Fellow of the Planning Institute of Australia while James was named the 2007 NSW Young Planner of the Year.



Urban Design/Town Planner James Li recognised for Planning Excellence.

- Sean Webber, Recruitment Services Support Officer, was a finalist in the 2007 National Disability Awards for Young Community Contribution. He was nominated for being Vice President of the Cerebral Palsy Sporting and Recreation Association of NSW and facilitator of the Rotary Youth Leadership Award.



Recruitment Support Office Sean Webber (centre) was a finalist in the 2007 National Disability Awards for Young Community Contribution.

Future challenges

OHS

- Working near high speed, high volume traffic continues to pose the greatest risk to RTA staff and contractors. A significant work program continues to address the management of this risk and will continue to be a key priority into the future. Similarly, working near mobile construction plant and in the vicinity of underground and overhead utilities also present continuing challenges.
- Working at heights is another area being addressed with the development of a standardised system aimed at better risk control, surveillance, pre-start checking and training.
- Preventing high consequence incidents is being pursued through site-specific risk control mechanisms.
- Developing the RTA's organisational safety mindfulness culture is an important initiative that is supported by the Executive and driven at a local level through leader engagement, awareness initiatives and training programs.

Staff management

- Manage workforce skills shortages due to retirements and skill gaps in several technical fields.
- Build professional and technical leadership through development plans and knowledge management.
- Expand the mentoring program and develop leadership and management proficiency.
- Complete the Workforce for the Future Plan.
- Ensure the development, retention and attraction of identified skills and capabilities by providing effective career pathways, managing succession within the context of an ageing workforce and improving the efficiency of recruitment processes.
- Build capacity and capability in the area of organisational leadership.
- Implement a robust structure for responding to critical incidents.
- Respond to the challenge of an ageing workforce with a continued focus on apprenticeships, traineeships and graduate recruitment.