

01 POSITIVE ECONOMIC OUTCOMES

INTERMEDIATE RESULTS

The road transport system provides reliable and efficient access between commercial, residential and recreational locations.

Sydney Harbour Bridge approach, Circular Quay and Bennelong Point 1943

STRATEGY

Maintain the road network to retain value, quality and capacity.

STRATEGY

Accelerate investment in projects that will deliver the greatest economic benefit.

STRATEGY

Align the development program with future growth and population patterns.

Optimise the efficiency of the road network through effective traffic management.



MAINTAINING THE ROAD NETWORK

THE NSW ROAD NETWORK

The 182,860 km NSW road network is a significant public asset providing access across the State for commuters, travellers, business and freight.

The road system is divided into four categories:

- 17,776 km of RTA-managed State Roads including 3,105 km of Federally-funded National Highways.
- 2,962 km of RTA-managed Regional and Local Roads in unincorporated NSW.
- 18,487 km of council-managed Regional Roads which receive significant RTA grant funds.
- 143,635 km of council-managed local access roads funded by both local ratepayers and Federal road assistance grants.

The RTA is also responsible for managing:

- 4,867 bridges and major culverts on RTA and council-managed roads.
- 3,410 traffic signal sites.
- Nine vehicular ferries.

INFRASTRUCTURE CONDITION

The ride quality on State-funded State Roads and National Highways is at a high level but in gradual decline, and is highlighted on the Hume, Newell, Sturt and Mitchell highways. These roads are key parts of the State's freight transport infrastructure. The Commonwealth Government's withdrawal from fully funding National Highways is at a time when the infrastructure requires significant investment.

The number of bridges on the State's arterial roads requiring temporary measures to ensure safe use was reduced from 21 to 19 during the year. These temporary measures ranged from the imposition of speed limits to provision of additional support. The RTA is implementing plans to manage these structures and restore them to full use where appropriate.

MAINTENANCE PLAN

Priorities for the Infrastructure Maintenance Program are established

on a risk basis to support safety, retained asset value and reliability of travel on State Roads. These strategic priorities are linked to outputs and service standards using program budgeting and maintenance contracts. The maintenance contracts establish consistent minimum levels of service with requirements for the identification and rectification of defects.

ROAD MAINTENANCE REFORM PACKAGE

The Road Maintenance Reform Package, introduced on 1 July 2000, saw a major change in the way that road maintenance is delivered across the State. A key component of the package was the introduction of single invitation maintenance contracts to create a contractual relationship between the RTA and council maintenance providers. The package continues to progress successfully, with more than 120 contracts with councils and the RTA's in-house service contractors. These reforms include use of consistent standards, procedures and management systems for worker safety, traffic control and safety, environmental protection and quality of works.

During 2004-05 the RTA prepared to move to a more collaborative Alliance style contract with the RTA's in-house maintenance service provider. This will provide cost efficiencies by streamlining internal work processes, with full implementation in 2005-06.

The RTA also had discussions with local government to encourage 'clustering' of local councils to reduce the number of small contracts. This is expected to produce cost savings through economies of scale without jeopardizing local employment.

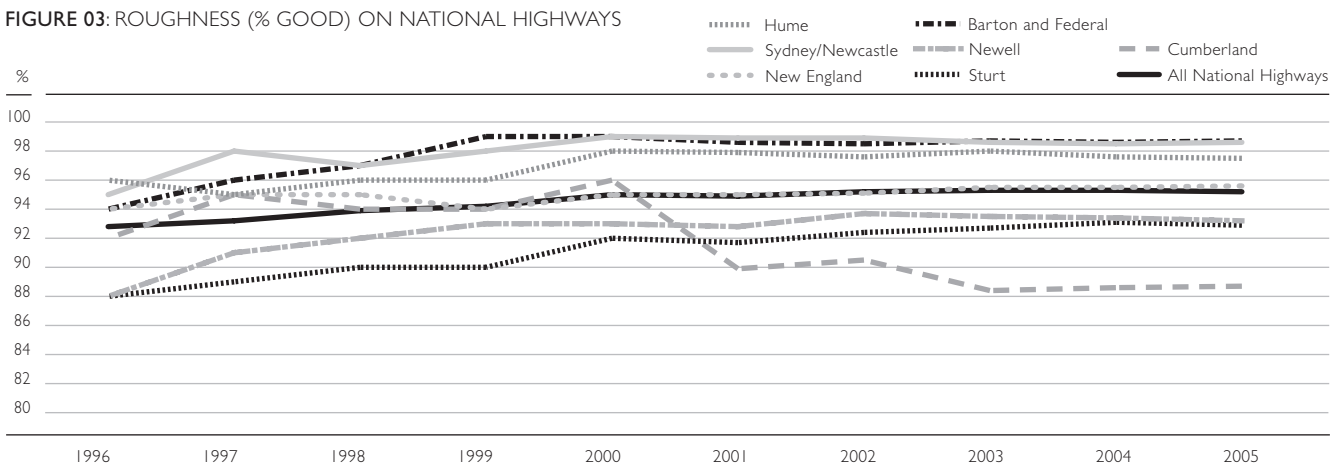
REBUILDING COUNTRY ROADS PROGRAM

The Government's Rebuilding Country Roads Program, part of Action for Transport 2010, involves a commitment by the RTA to spend at least \$100 million a year on renewing roads and bridges to the latest standards. In 2004-05, the RTA spent \$117.54 million on the program.

The first stage of the program – the five-year Country Timber Bridge Program – was completed in 2004-05. The program replaced or restored 140 key timber bridges with the last of these bridges opening in November 2004. The program provided extensive investment across rural NSW.

The RTA continued to complete major works under an accelerated maintenance program for the State's arterial road network. The

FIGURE 03: ROUGHNESS (% GOOD) ON NATIONAL HIGHWAYS



accelerated program is funded by a variety of increased RTA charges, including a rise in the Sydney Harbour Bridge toll, which were announced by the Government in December 2001. All of the additional funds, estimated at \$60 million per annum, are being put directly into maintenance of the RTA's arterial roads and bridges, with the majority to be spent on the RTA's rural and regional arterial roads. These funds represent a real increase over the original Rebuilding Country Roads Program commitment.

Major works recently completed under the accelerated program include:

- 2.5 km of the Pacific Highway at Fredrickton and Wardell Flats.
- The Northern Road from Narellan to Regentville.
- 5 km of the Mid Western Highway west of West Wyalong.
- 2.2 km of the Lachlan Valley Way north of Boorowa.
- Sections of the Southern Freeway between Waterfall and Bulli Tops and between Mount Ousley and Dapto.
- 3.6 km of the Mitchell Highway between Bathurst and Orange.
- Repainting Harwood Bridge on the Pacific Highway.

DISASTER REPAIRS

Disasters cause widespread hardship for the people of NSW and industry. The State Government provides significant financial assistance to councils to repair roads damaged by declared natural disasters. It also funds repairs to road infrastructure on Crown Roads.

In 2004-05, the RTA managed the provision of \$16.88 million of State Government funds to repair damage from declared storms, flooding and bushfires.

MURRAY RIVER BORDER CROSSINGS

The program to upgrade key crossings of the Murray River progressed in 2004-05. The Government's Action for Transport 2010 identified eight key crossings of the Murray River that needed to be upgraded. The NSW and Victorian governments published a Murray Crossings Strategy in March 2002.

Both the NSW and Victorian Governments are fully funding a new

crossing at Barooga-Cobram. Construction of the new bridge has begun and is expected to be completed in late 2006.

The NSW Government is cooperating with the Federal and Victorian governments on the following major projects:

- The new crossing at Corowa – Federation Bridge – which was opened to traffic in February 2005.
- The new crossing at Robinvale which is under construction and is expected to be completed in early 2006.
- A new crossing at Moama-Echuca for which planning is in progress.

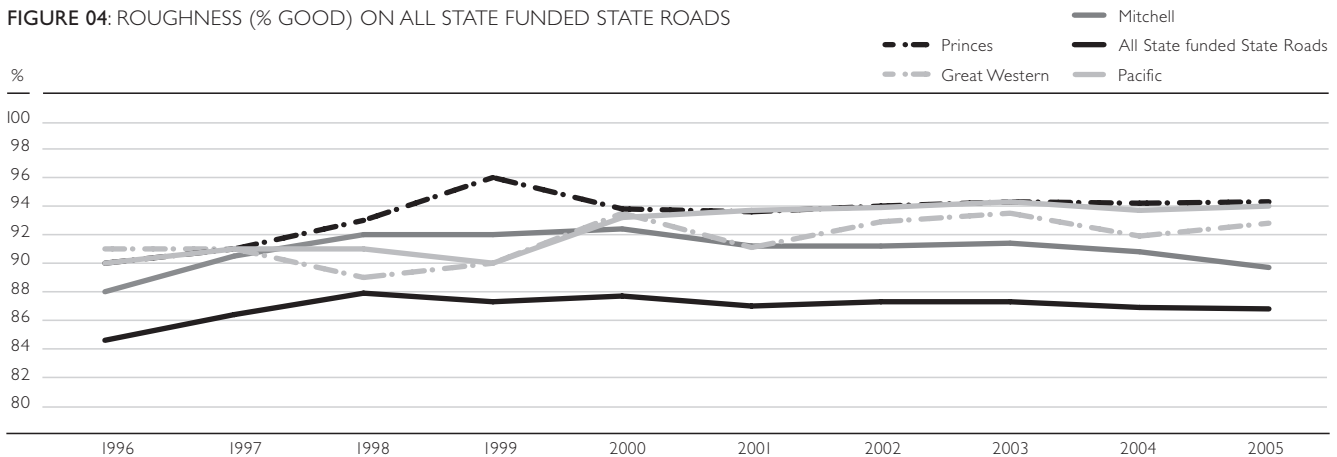
SLOPE STABILITY

In 2004-05 the collection of a Statewide inventory of slopes was substantially completed and a three year risk management program began to assess the risk associated with all slopes in the inventory. All inventory slopes on the Alpine Way were risk rated. Slopes on the Illawarra Highway were also assessed.

In May 2004 the RTA became responsible for the entire length of the Alpine Way. The Alpine Way is a scenic mountain road from Jindabyne to Khancoban which provides access to Kosciuszko National Park, Thredbo Village and access across the highlands to Khancoban. The Alpine Way was originally built by the Snowy Mountains Authority for the construction of the Snowy Mountains Hydroelectric Scheme. The RTA has undertaken a review of geotechnical issues along the Alpine Way as part of its new responsibility for the road.

Highlights of the slope program included slope stability works on Clyde Mountain (Kings Highway), road widening and reprofiling of a cutting north of Berry on the Princes Highway and construction of an improved rock fence on the Princes Highway at the Saddleback Mountain Road overbridge.

Improvements were made at selected locations on Waterfall Way, Dorrigo Mountain, as part of the reinstatement of slopes damaged by intense runoff following significant rainfall in the area. Slope stability works commenced on Manly Road near Spit Road and were completed on Warringah Road, Forestville. A number of slopes along the Putty Road north of Windsor were also treated.

FIGURE 04: ROUGHNESS (% GOOD) ON ALL STATE FUNDED STATE ROADS

LAWRENCE HARGRAVE DRIVE

Lawrence Hargrave Drive, a coastal road north of Wollongong, includes a 900-metre section between Clifton and Coalcliff with a long history of rock falls. More than 50 falls have been reported on the section of road since 1996.

Construction of a major repair project began in June 2004. The project includes the construction of two adjoining bridges. The first major concrete pours were completed in September 2004 and the first pier was completed by early December, with all piling completed in December 2004. The bridge was launched in January 2005 and the final two piers were completed in June 2005.

Work on this project is progressing well and was ahead of schedule. It is expected Lawrence Hargrave Drive will reopen in early 2006.

SYDNEY HARBOUR BRIDGE

The RTA is implementing a Conservation Management Plan for the Sydney Harbour Bridge. A major repainting program continued for the Southern Approach spans.

LOCAL GOVERNMENT LIAISON COMMITTEE

The RTA's Chief Executive and key Directors continued to meet regularly with the Presidents of the Local Government Association of NSW and the Shires Association of NSW via the RTA Local Government Liaison Committee.

The committee's role is to enhance communication and promote cooperation between the RTA and local government on road and traffic issues of mutual interest. Issues discussed by the committee included funding assistance for Regional Roads, AusLink, the Roads to Recovery Program, the timber bridge program and a road classification review. The committee also received regular updates on the progress of the single invitation contract arrangements and benchmarking of road maintenance.

REVIEW OF THE CLASSIFICATION OF STATE AND REGIONAL ROADS

A Statewide review of the classification of State and Regional Roads began in 2004-05.

The identification of roads as State or Regional is a strategic management tool that enables the Government to direct resources to the roads of greatest strategic benefit to the State. The objective of the review is to add or delete roads from the State and Regional Road networks, by taking account of changes in the importance and function of roads. These changes arise from alterations in population, land use, economic activity and the construction of new roads.

The review is being undertaken by a three member panel which has Local Government and RTA experience. The terms of reference require close consultation with Local Government. The overall level of road funding is to remain the same.

The panel will consult extensively with Local Government and undertake detailed analysis before finalising a report in late 2005 which will contain specific recommendations for road reclassifications.

ROADS ACT REVIEW

The *Roads Act 1993* is the primary legislation controlling the management of roads in NSW. A statutory review of the Act was tabled in Parliament in 1999 but was not acted on at that time. In December 2004 the Minister decided that the review of the legislation should be revisited to clarify responsibilities for various classes of road. The review is to take into account the RTA's varying and sometimes conflicting roles under the Act of regulator, consent authority, asset owner, service provider, standards setter, strategic planner and provider of funding. Modern concepts of ownership and asset management also need to be considered. The review provides an opportunity to modernise the Act and present it more clearly.

The review began in March 2005. The RTA has reviewed the report tabled in Parliament in 1999, identified emerging issues and is preparing a discussion paper to facilitate consultation with government agencies, local government and the wider community. Subject to the consultation process, the RTA expects to make recommendations for legislative change in 2006.

FIGURE 05: REBUILDING COUNTRY ROADS PROGRAM EXPENDITURE

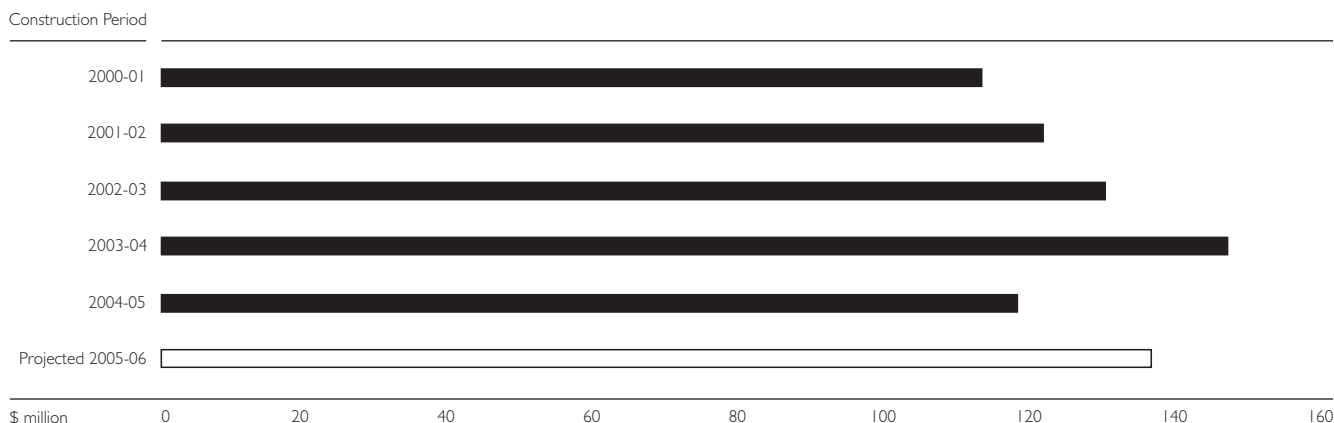
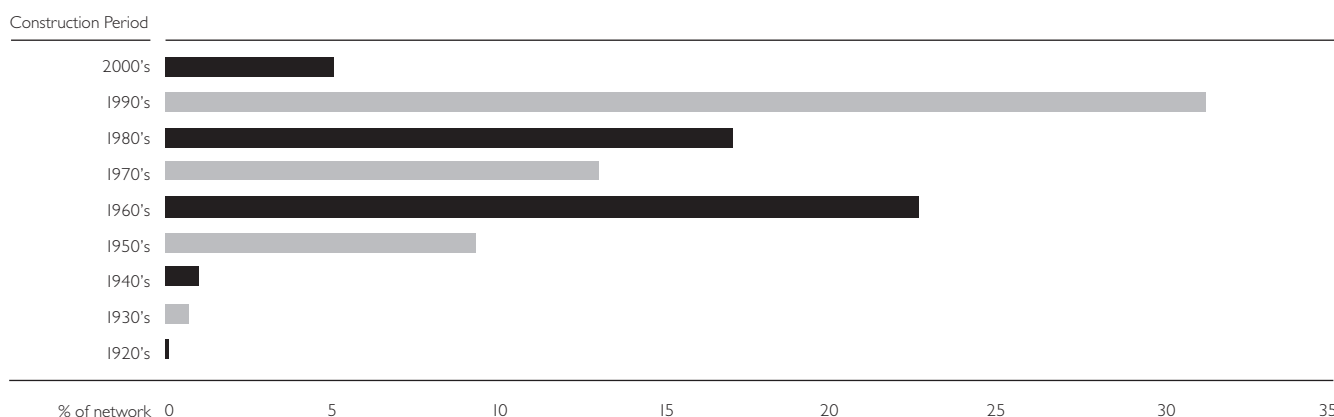


FIGURE 06: DISTRIBUTION OF CONSTRUCTION PERIOD FOR STATE AND NATIONAL ROADS



ROAD DEVELOPMENT

PROJECT DELIVERY

During the year, 23 major construction projects with individual costs of more than \$1 million were completed. Total expenditure on these projects was \$807.7 million.

TABLE 7: PROJECT DELIVERY

	No of projects	Total expenditure (\$ million)	% of projects weighted by project cost
Completed within budget or within 10% over budget	19	748.6	92.7
Completed within planned duration or within 10% over planned duration	15	675.1	83.6

MOTORWAYS

Cross City Tunnel

The tunnel construction is in the final stages of completion, with mechanical and electrical fit-out well underway. The tunnel is

expected to be open before the contract completion date of October 2005. Project related surface works to William Street will continue after the tunnel opening. Following the opening, the RTA will closely monitor the operational performance of the tunnel in relation to air quality, traffic performance, noise impacts and compliance with ongoing conditions of approval.

The 2.1 km twin tunnel, between Darling Harbour and Kings Cross, will connect to the Western and Eastern distributors. The tunnel is designed to improve east-west traffic flows, ease traffic congestion and improve conditions in Sydney's CBD and on the streets approaching the city. By 2016, the tunnel is expected to be used by more than 90,000 vehicles per day; without the tunnel, the majority of these vehicles would be travelling on the city's streets.

The project is being funded, designed and built by the Cross City Motorway Consortium (CCM), in line with the project agreement with the RTA and planning approval conditions issued by the Minister for Planning. The consortium consists of Cheung Kong Infrastructure Holdings Limited (CKI) (50 per cent), Deutsche Bank Capital Partners (30 per cent) and Bilfinger Berger BOT GMBH (20 per cent), the investment company of Bilfinger Aktiengesellschaft.

FIGURE 07: NUMBER OF STRUCTURALLY DEFICIENT BRIDGES ON STATE ROADS (INCLUDING NATIONAL HIGHWAYS)

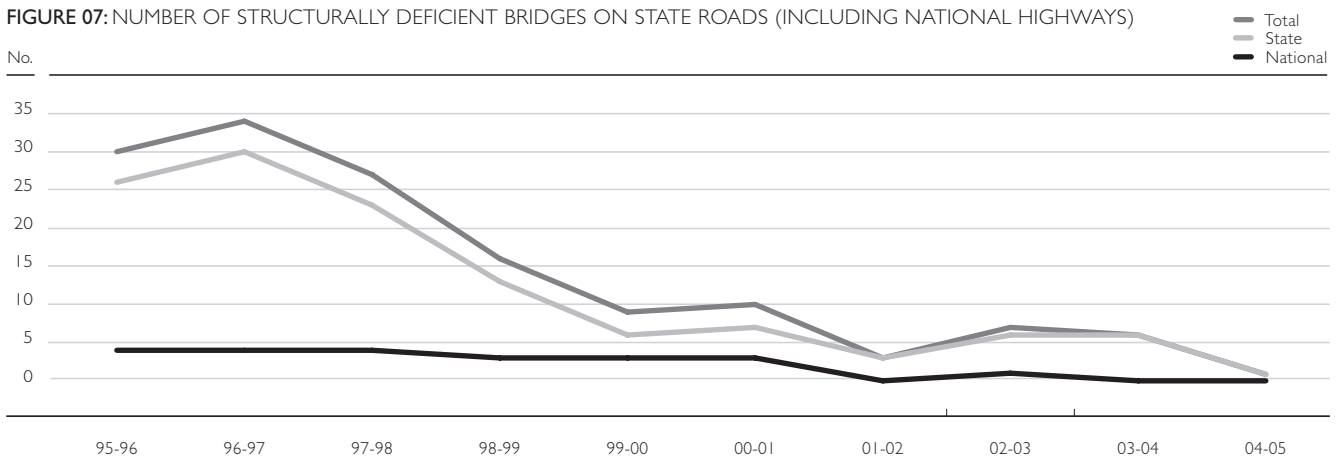
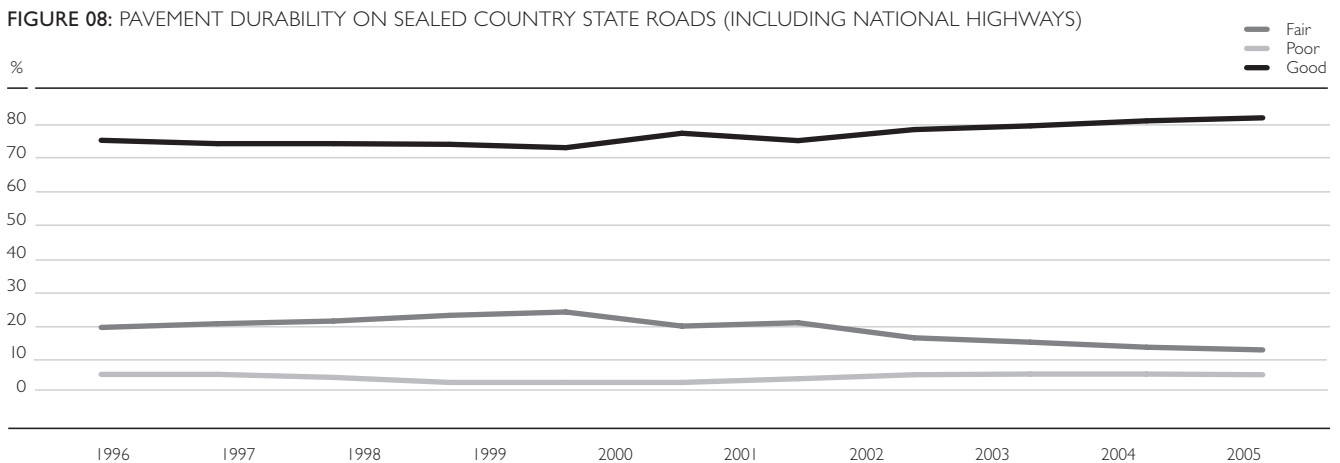


FIGURE 08: PAVEMENT DURABILITY ON SEALED COUNTRY STATE ROADS (INCLUDING NATIONAL HIGHWAYS)



The CCM has engaged the Baulderstone Hornibrook Bilfinger Berger joint venture to design and construct the tunnel, at an estimated cost of \$680 million (including development, design, construction, fit-out and commissioning). CCM will operate and maintain the tunnel for a term of 30 years and two months.

Tolling will be fully electronic and interoperative with other Sydney toll roads. There will be no toll booths on the Cross City Tunnel.

Lane Cove Tunnel

Substantial construction of the Lane Cove Tunnel began in June 2004. The tunnel, between the M2 Motorway and the Gore Hill Freeway, will complete the final link in the Sydney Orbital, and will connect the north-west sector of Sydney with the CBD. The Minister for Planning approved the project in December 2002. The project is expected to be open to traffic in 2007.

The Lane Cove Tunnel company was contracted in December 2003 to finance, design, build, maintain and operate the project. Equity is provided by Thiess Pty Limited, Transfield Holdings Pty Ltd, Cheung Kong Infrastructure Holdings Limited and Li Ka Shing (overseas) foundation. The Lane Cove Tunnel Company has engaged the Thiess John Hollard joint venture to design and construct the project.

The project will provide bus lanes along Epping Road and transit lanes on the widened Gore Hill Freeway from the M2 at the Lane Cove River to the Warringah Freeway. New ramps will be 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.

Work was well underway in all areas with eight road headers in operation and excavation of tunnels approximately 60 per cent complete.

Tolling will be fully electronic and interoperable with other Sydney toll roads. There will be no toll booths on the Lane Cove Tunnel.

Westlink M7

Work on the Westlink M7 was well advanced in all areas with 85 per cent of bridgeworks complete and 90 per cent of concrete road pavement construction complete. The project is progressing ahead of schedule and is expected to open to traffic by April 2006.

The Westlink M7 (formerly known as the Western Sydney Orbital), between the M5 Motorway at Prestons and the M2 Motorway at West Baulkham Hills, will form part of the National Highway through Sydney and will be a key link in the Sydney Orbital Motorway network. It will comprise approximately 40 km of dual carriageway

and will support the industrial and commercial development of Western Sydney, taking heavy vehicles off local streets.

In January 2001 the Federal Government made a commitment to provide, progressively, a total of \$356 million to the project with the remaining design and construction funding of more than \$1.5 billion to be provided by the private sector. The NSW Minister for Planning approved the project, with conditions, in February 2002.

The Westlink Consortium was contracted in February 2003 to finance, design, build, maintain and operate the project. Equity is provided by Transurban, Macquarie Infrastructure Group, Abigroup Contractors and Leighton Contractors. Westlink has in turn engaged the Abigroup/Leightons joint venture to design and construct the motorway. Westlink will operate and maintain the tollroad for the remainder of the 34 year concession period after completion of construction. Tolling will be fully electronic and interoperable with other Sydney tollroads. There will be no toll booths on the Westlink M7.

PACIFIC HIGHWAY UPGRADE

The Pacific Highway upgrade reached several important milestones in 2004-05 including the opening of the \$123 million Karuah Bypass and the start of construction on the \$114 million Karuah to Bulahdelah Section 1.

The NSW Government is committed to developing the entire Pacific Highway as a four-lane, dual carriageway route. Under the current 10-year agreement, which concludes in 2006, the NSW Government has committed \$160 million per year to the Pacific Highway for major projects, maintenance and minor works. An additional \$60 million per year is funded by the Federal Government.

During the last nine years, the \$2.2 billion Pacific Highway Upgrading Program has completed 44 major and minor projects. Construction is underway at four sites and 20 projects are in planning and development.

The current 10-year program finishes in June 2006. Details of a new funding agreement beyond the current program are being developed between the Federal and NSW governments.

Highlights during the year included:

Karuah Bypass // The \$123 million Karuah Bypass was opened to traffic in September 2004. This project, jointly funded by the State and Federal governments, provides 9.8 km of four-lane dual carriageway and runs from Swan Bay Road, 5 km west of Karuah, to The Branch Lane, 5 km east of Karuah. The bypass will improve safety and reduce congestion and delays in the area, improving quality of life in the town centre. The new Karuah River bridge is the longest incrementally launched bridge of its type in Australia.

Bundacree Creek to Possum Brush // Construction commenced on the \$115 million, 9.7 km upgrade of the Pacific Highway from Bundacree Creek to Possum Brush, near the township of Nabic. This project is jointly funded by the State and Federal governments and is expected to be complete by mid 2006.

Taree to Coopernook // The \$59 million Taree to Coopernook upgrade will provide 7.3km of dual carriageway between the northern end of the Taree Bypass and the southern end of the Coopernook Bypass, with a new carriageway being built adjacent to the existing road. It is jointly funded by the State and Federal governments. This project is scheduled for completion in August 2005.

Coopernook Bypass // Construction continues on this \$69 million project, which began in February 2002. When combined with the Taree to Coopernook upgrade, the 4.2 km dual carriageway bypass of Coopernook will improve road safety and travel times. This project is fully funded by the State Government and is scheduled for completion in 2006.

Brunswick Heads to Yelgun // This \$209 million, 8.7 km project involves construction of a new dual carriageway generally adjacent to the current highway north of Brunswick Heads and a second carriageway on the Brunswick Heads Bypass. Construction was due to begin in July 2005 and is expected to be completed in late 2006. The project is jointly funded by the State and Federal governments.

Karuah to Bulahdelah Section 1 // Construction of the \$114 million, 11 km Karuah to Bulahdelah Section 1 upgrade began in November 2004, with an anticipated completion date of mid 2006. The upgrade will provide dual carriageways on a new highway alignment over much of the length of the project and this is expected to significantly improve safety. This project is jointly funded by State and Federal governments.

Lakes Way Interchange // The State-funded, grade-separated interchange at the Lakes Way, Rainbow Flat was completed in July 2005. The new overpass will greatly improve road safety at this intersection.

Other highlights

Environmental impact statements (EIS) were released for the:

- Bulahdelah Upgrade (8.5 km)
- Moorland to Heron's Creek (22 km)
- NSW section of the Tugun Bypass (7 km)

Planning approval was received for the following projects:

- Modifications to the Bonville Upgrade project (9.6 km)
- Coopernook to Moorland (10.3 km)

Preferred routes have been selected for:

- Coffs Harbour Highway Planning Strategy (12 km)
- Sapphire to Woolgoolga (24 km)
- Kempsey to Eungai (39 km)

Route options displays have been released for:

- Macksville to Urunga (40 km, including the Warrell Creek project)
- Woodburn to Ballina (32 km)
- Banora Point (2.5 km)

Projects under development

In October 2004, planning commenced on the remaining sections of single carriageway. Ten new projects were added to those already in development.

Major projects being planned for new dual carriageway include:

- F3 to Raymond Terrace (12.2 km)
- Bulahdelah Upgrade (8.5 km)
- Failford Road to Tritton Road (3.3 km)
- Moorland to Herons Creek (22 km)
- Herons Creek to Stills Road (3.3 km)
- Oxley Highway to Kempsey (38.8 km)
- Kempsey to Eungai (39 km)
- Macksville to Urunga (40 km, including the Warrell Creek project)
- Coffs Harbour Highway Planning Strategy (12 km)
- Sapphire to Woolgoolga (24 km)
- Woolgoolga to Wells Crossing (27.8 km)
- Wells Crossing to Harwood (including Ulmarra Bypass)
- Harwood to Iluka
- Iluka Road to Woodburn (35 km)
- Woodburn to Ballina (32 km)
- Tintenbar to Ewingsdale (17 km)
- Banora Point (2.5 km)
- Tugun Bypass - coproponent with Queensland Main Roads (7 km NSW section)

These projects are in various stages of planning, from the early development of route options to the selection of a preferred option, as well as EIS exhibition.

M4 East

The RTA commenced work on an EIS following the announcement of a preferred option by the then Minister for Roads in June 2004. The preferred option was to link the M4 at North Strathfield to Parramatta Road at Ashfield and the City West Link at Dobroyd Point.

Concurrently, the RTA participated in DIPNR's Parramatta Road Task Force, recognising the opportunities the M4 East would create for urban renewal and improved public transport along the corridor:

DIPNR's continuing work on Sydney's metropolitan strategy highlighted the critical significance of Port Botany and Sydney Airport to the NSW economy.

In April 2005, a joint announcement by the Minister for Infrastructure and Planning and the Minister for Roads and Ports indicated that the RTA's M4 East EIS would be put on hold while consideration was given to the broader context, including a review of any need for a future link between the existing M4 and the Mascot/Botany area.

F3 Freeway to M2 Motorway Link

This Australian Government proposal would link the F3 Freeway at Wahroonga to the M2 Motorway at Carlingford. It would also be the final link to provide motorway conditions all the way through Sydney from north to south via the F3, the new link, the M2, the M7 and the F5.

Following completion of a feasibility study, the Federal Government announced in May 2004 the preferred corridor option for the link, which is a wide corridor about 8km long. The new link would be mostly a tunnel running underneath Pennant Hills Road between the F3 at Wahroonga and the M2 at the Pennant Hills Road interchange. It would enable motorists to avoid the 22 sets of traffic signals along the existing route.

The next phase of the project is concept development and EIA. The Federal Government approved funding for this work in April 2005 and is considering the RTA's proposal for undertaking the work.

URBAN PROJECTS

Old Windsor Road/Windsor Road upgrade

The \$420 million program to upgrade Windsor Road and Old Windsor Road to a minimum of four lanes is progressing well. Thirteen kilometres of Old Windsor Road/Windsor Road have been completed at a cost of more than \$100 million. During the year the upgrade of Windsor Road between Norwest Boulevard and Showground Road at Baulkham Hills was completed. Major contracts were awarded for construction of the following sections of the upgrade:

- Roxborough Park Road to Norwest Boulevard, Baulkham Hills.
- Acres Road to Old Windsor Road, Kellyville.
- Mile End Road, Rouse Hill to Boundary Road, Box Hill.
- Boundary Road, Box Hill to Level Crossing Road, Vineyard.

Substantial construction began on three of these sections, and all are scheduled for completion in late 2006, at which time Windsor and Old Windsor roads will have been upgraded to four lanes between Parramatta and McGraths Hill.

Tenders for construction of the final project in the program, the Windsor flood evacuation route across South Creek, were called in June 2005.

The Windsor Road upgrade is improving the accessibility, safety and reliability of travel in the north west sector of Sydney. The upgrade will significantly contribute to the economic development of Western Sydney.

Bangor Bypass

The Bangor Bypass is a four lane divided road consisting of two sections – a 2.8km North-South Link between New Illawarra Road and Alfords Point Road to the west of and parallel to Old Illawarra Road and a 3.4km East-West Link between the Woronora Bridge and the North-South Link.

The Minister for Planning approved the Bangor Bypass in November 2002. The construction contract for the East-West Link and a short section of the North-South Link was awarded to Abigroup and major work began in June 2003. The Minister for Roads announced that full construction of the northern section of the North-South Link between the East-West Link and Alford's Point Road would be accelerated and opened to traffic in conjunction with the East-West Link.

This expanded scope of work linking Woronora Bridge to Alford's Point Road and bypassing Menai Road and part of Old Illawarra Road, was opened to traffic in February 2005. The bypass has relieved traffic volumes on Menai Road and Old Illawarra Road, enabling better access between Sutherland and Bankstown and reducing congestion and improving safety on Menai Road.

Hoxton Park Road upgrade

Hoxton Park Road is being progressively upgraded to provide a divided road at least four-lanes wide and an off-road cycleway. It carries the Liverpool to Parramatta Bus Transitway (LPT) on two separate, central lanes between Banks Road and Brickmakers Creek. Construction of the section between Hill Road and Brickmakers Creek was opened to traffic in May 2005 and provides four general traffic lanes and two central lanes for the LPT, consistent with the design between Banks Road and Hill Road.

Concept design for the final section between Cowpasture Road and Banks Road is well advanced. Within this section, construction of a new signalised intersection at Whitford and Illaroo roads commenced in December 2004.

Cowpasture Road upgrade

Cowpasture Road was a 12.8 km, 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.

Cowpasture Road is currently being upgraded in two sections:

- Between the M7 Motorway and Hoxton Park Road. Major construction began in June 2004 and is expected to be completed in 2006 in conjunction with the opening of the M7 Motorway.
- Between Hoxton Park Road and Main Street. Major construction commenced in May 2005 on the upgrade which is expected to be completed in late 2006.

Concept development works are being carried out for the two remaining sections of Cowpasture Road: from Main Street to Camden Valley Way and from North Liverpool Road to the M7. The Cowpasture Road upgrade is improving accessibility, safety and reliability of travel.

Camden Valley Way upgrade

In January 2005, construction began to widen the section of Camden Valley Way between the M5 and Bernera Road at Prestons. Concept

design and a preliminary environmental assessment are being undertaken for the section between Bernera Road and Cowpasture Road.

North-West Bus T-way Network

The North-West T-Way Network comprises two links – Parramatta to Rouse Hill Regional Centre (17 km with 20 stations) and Blacktown to Parklea (7 km with 10 stations). Major construction works commenced in June 2005 and overall completion is scheduled for the end of 2007.

The T-way will service the suburbs of Parramatta, Westmead, Wentworthville, Old Toongabbie, Winston Hills, Seven Hills, Kings Langley, Bella Vista, Kellyville, Balmoral Road release area, Glenwood, Kellyville Ridge, Mungerie Park, Blacktown, Kings Park, Acacia Gardens, Parklea, Stanhope Gardens. These areas will be provided with better connections to educational, recreational, employment and health facilities and the CityRail train network.

IMPROVING ACCESS BETWEEN CITIES AND REGIONS

Hume Highway

The design-construct-maintain contract for the Albury Wodonga Hume Freeway project in NSW was awarded to Abigroup Pty Ltd in February 2005. Construction was due to commence in July 2005 and is scheduled for completion in mid 2007. The \$374 million project in NSW is fully funded by the Federal Government.

New England Highway

Planning continued for the link between the F3 at Seahampton and the New England Highway at Branxton. The Federal Government's AusLink program has allocated a total of \$253 million for the project for the five years from 2004-05 to 2008-09, and has made construction funding conditional on a 20 per cent contribution from the State Government. Funding for construction of the project has yet to be resolved.

Planning continued for the interchange with Weakleys Drive at Beresfield that will eliminate three sets of traffic signals for through traffic on the New England Highway. Construction tenders for the fully Federal funded project are expected to be invited in the first half of 2006. In 2003, the State Government completed the associated \$7 million Beresfield-Thornton link road which is an integral component of the project.

Construction of the \$8.7 million fully Federal funded Duval Creek realignment, 13-15 km north of Armidale, was completed and opened to traffic in December 2004.

Construction of Devils Pinch realignment, 27-30km north of Armidale, continued during the year. The \$25 million project, fully Federal funded, is scheduled for completion in early 2006.

Princes Highway

Upgrading of the Princes Highway has been a high priority for the NSW Government. The route has a poor accident record and in late 2004 a thorough safety review of the route was undertaken to

develop a road safety strategy for the Highway between Yallah and the Victorian Border. The strategy also includes a Federally funded program of improvement works between Nowra and Jervis Bay.

The NSW Government will continue to lobby the Federal Government for a substantial commitment to this route which, south of Wollongong, does not form part of the Commonwealth's AusLink Network for funding purposes.

North Kiama Bypass

The first stage of the North Kiama Bypass was finished with the completion of a 942 metre bridge on the Princes Highway across the Minnamurra River Floodplain in February 2003. This bridge is an important milestone for the North Kiama Bypass that will ultimately link the Kiama Bypass in the south and the Princes Highway near Dunmore, in the north. In August 2003 a contract was awarded for the remaining works including drilling and blasting of hard rock cuttings, construction of embankments over soft ground, a further six bridges and several large culverts, retaining walls, noise walls and placement of the new road pavement. During 2004-05, earthworks and culverts were substantially completed, pavement works commenced, three bridges were completed and work began on the remaining three bridges. The project is scheduled for completion late in 2005.

Great Western Highway

The Great Western Highway upgrade program progressed this year with two new sections opened to traffic. The program will widen the highway to four lanes between Penrith and Katoomba and to mostly three lanes between Katoomba and Mount Victoria, with further upgrades to Lithgow. The upgrade will improve travel times for motorists and provide a safer road environment for all road users including pedestrians and cyclists.

Projects have been completed at Blaxland, Warrimoo to Valley Heights, Faulconbridge, Linden, Medlow Bath, Soldiers Pinch and South Bowenfels. In August 2004 the four-lane realignment of the highway at Shell Corner near Katoomba was opened to traffic and the four-lane upgrade at Wentworth Falls West was opened in June 2005. Construction continued between Leura and Katoomba and preliminary works commenced on the Woodford to Hazelbrook project. Planning works progressed for projects between Lawson and Wentworth Falls.

The State and Federal governments have committed \$360 million and \$100 million respectively to the upgrade program. Along with the upgrade, work continues to improve the overall safety of the route. Construction continued on works to improve safety on the Lapstone Hill section of the highway. These works include extension of the central median crash barrier; a wider westbound shoulder for cyclists and a reduction of the speed limit to 70 km/h.

CENTRAL COAST PROJECTS

The Entrance Road and Avoca Drive Intersection upgrade

The \$4.8 million major upgrade of this intersection was opened to traffic in July 2004. The improvements include new traffic signals and

widening to allow for two right turn and two left turn lanes from Avoca Drive into The Entrance Road. The work reduces congestion and major delays experienced during peak hours and Saturday mornings and also helps to deal with the increased demands on the intersection caused by the current expansion of the Erina Fair Shopping Centre. The intersection improvements include a Gosford-bound Bus Priority Lane along The Entrance Road and a new off-road shared cycleway/footpath along Avoca Drive between The Entrance Road and Dalgety Crescent.

The Entrance Road and Terrigal Drive intersection upgrade

A contract was awarded in April 2004 for a \$10 million major upgrade to replace the existing roundabout with new traffic signals. The upgrade provides two through, and two right turning lanes, on most approaches to improve traffic flow as will two new left-turn lanes from Terrigal Drive to The Entrance Road. A dedicated left turn bay at Penrose Crescent is included to provide extra safety for turning motorists, while the traffic signals reduce the delays and improve safety for pedestrians. The project also includes a right-turn lane for southbound traffic on The Entrance Road for motorists wishing to turn into Narrawa Avenue. A dedicated turn lane for northbound traffic on Barralong Road needing to turn left into The Entrance Road is included and on and off-road cycle lanes are provided for cyclists. The project was substantially completed by June 2005.

RURAL PROJECTS

Lidsdale to Cox River Deviation

Work commenced in February 2003 on this \$22 million, 2.6 km realignment of the Castlereagh Highway to improve safety and minimise flood impacts on the road. A new two-lane bridge over the Coal Convey was completed in November 2003 and a new bridge over the Cox's River was completed in April 2004. Road works are currently in progress with completion planned for August 2005.

Gerogery Level Crossing

Construction commenced in November 2003 on the approaches for a new rail overbridge on the Olympic Highway, south of Gerogery and a contract for construction of the new bridge was awarded in August 2004. The new 140 metre, four-span bridge replaces a level crossing. The total project is 1.6 km long including the new concrete and steel bridge. The bridge over the railway will significantly improve road safety and travelling conditions and is expected to be completed late in 2005.

MANAGING TRAFFIC

SPEED AND TRAFFIC VOLUME TRENDS

On the seven major routes to and from the Sydney CBD, average speeds in 2004-05 were 31 km/h for the AM peak, which is lower than the past few years although generally consistent with the long-term performance, and 41 km/h for the PM peak, which was unchanged since 2002-03. The trends in average speeds for these major routes are shown on page 27, together with the growth in

traffic volumes on these routes during the same period. Despite traffic volume growth of around 47 per cent during the past 15 years, the trend in average peak hour speeds has remained consistent.

KEEPING THE TRAFFIC FLOWING

Initiatives in 2004-05 aimed at maintaining consistent travel times for motorists, particularly during peak hours, focused on:

- Responding more efficiently to incidents to minimise disruption to traffic flow.
- Addressing causes of congestion and delay by improving the operation of intersections and developing electronic tolling.
- Helping road users navigate the road system more effectively.
- Improving the traffic signal control system.

Incidents and special events

The Transport Management Centre (TMC) is responsible for managing special events and unplanned incidents and disseminating information to road users. It is the central point for identifying and directing the response to incidents such as crashes, breakdowns and spills. It provides public information through the media, the call centre and variable message signs.

The TMC is responsible for optimising traffic systems, including fine-tuning coordinated traffic signal systems and controlling 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 (TEP) service for motorists along major routes in Sydney and surrounding areas. TEP services were extended at Tweed Heads and Coffs Harbour during the summer months and similar seasonal operations will be considered for the future.
- Operation of Variable Speed Limit signs on the M4 and M5 motorways to allow speed limits to be adjusted in response to prevailing traffic conditions.
- Expansion and operation of the system of 372 variable message signs across Sydney's metropolitan area and selected major routes across the State.
- Expansion and operation of the network of 430 closed circuit television cameras monitoring roads across Sydney and selected major routes.

Further work was undertaken during 2004-05 to improve traffic reports on the RTA website (www.rta.nsw.gov.au). The improvements are scheduled to come on line in late 2005. They include images from 25 cameras compared to the current 10 and a traffic flow map indicating traffic conditions on a number of major routes. The map will break the routes into various smaller links which will be coloured coded as red, orange or green to give an indication of traffic conditions. Red indicates heavy volumes and more congested conditions whereas green indicates free flowing conditions. The colour coding will be updated regularly throughout the day.

Intersection and network improvements

Intersection improvements and improved access to major roads result in reduced travel times and delays on corridors and at specific locations. Congestion and travel times on the network are monitored to identify routes and locations in need of attention.

In 2004-05 improvements included construction of traffic signals, roundabouts and turn bays in the following locations:

- Suburban Sydney, including Stacey Street and Rickard Road, Bankstown, Bells Line of Road, Terrace Road and Grose Vale Road, Richmond, and Seven Hills Road and Astoria Park Road, Baulkham Hills.
- Northern NSW, including the Pacific Highway at South Kempsey, Frederickton and Collombatti.
- South western NSW, including Splitters Creek Road, West of Albury, and Gilmore Road, West of Tumut.
- Southern NSW, including Springhill and Masters Road, Coniston.

Traffic signal coordination

Traffic signal coordination is essential in moving traffic efficiently on arterial roads. The Sydney Coordinated Adaptive Traffic System (SCATS) responds to traffic demand as it happens and coordinates the traffic signal timings to ensure the best traffic flows. SCATS capability has been enhanced to achieve smooth traffic flows on arterial roads and priority for buses.

The Traffic Management Interface System (TMIS) provides a user configurable map-based interface for the various traffic management applications used in the TMC. These applications include SCATS, the Public Transport Information Processing System (which provides priority traffic signal operations for bus movements), the Central Management Computer System (which is used for incident management), the Traffic Information Reporting Facility (which is used for reporting incident details) and the Video Control System (which is used for controlling Closed Circuit Television Cameras). The TMIS displays key information from these applications such as site status, alarms, congestion, closed circuit television images and incidents, all in a highly user-configurable way. Selecting any of these features gives detailed information that allows staff to monitor and control the operation of the traffic network through a seamless connection to the underlying applications. TMIS has been designed to allow for additional applications to be interfaced as needed. The first release, to be deployed live in August 2005, is the foundation on which further integration can be built.

A measure of the success of SCATS is its continued expansion worldwide. SCATS is currently licensed to more than 8,300 intersections in eight States and territories in Australia, and a further 13,100 sites in 75 cities in 18 other countries.

International distribution rights for SCATS were successfully renegotiated with the RTA's international distributor, Tyco Projects (Australia) Pty Ltd, in May 2005. The agreement includes a staged increase in licence fees over the next two years.

Electronic toll collection

The electronic tolling system was installed on the Sydney Harbour Bridge and Sydney Harbour Tunnel in 2001 and usage has continued to grow. Electronic toll collection allows easier passage through tollbooths. The progressive introduction of E-Only lanes has improved traffic flow, as well as providing environmental benefits by reducing air and noise pollution because vehicles do not have to stop to pay a toll.

The use of electronic toll tags has rapidly expanded due to the ability to use a tag issued for one motorway on all motorways in eastern Australia. The RTA has issued 236,000 electronic toll tags for the Sydney Harbour Bridge and Tunnel. More than half a million tags are in use in NSW, including tags issued by other motorway operators. More than 79,000 tag readings per day have been recorded on the Sydney Harbour Bridge, Tunnel and Cahill Expressway and more than 65 per cent of vehicles use E-toll tags during the morning peak.

The Sydney Harbour Tunnel tollbooths have progressively been reconfigured to improve throughput and reduce queues. This involved additional E-Only booths.

The RTA provides a toll compliance service for all toll roads in NSW. An outsourced Toll Compliance Management Process (TCMP) will be in operation with the opening of the Cross City Tunnel to improve the level of service and cater for expected rapid growth in demand for these services with the opening of fully electronic toll roads. The RTA will provide this service to the operators of toll roads, allowing them to follow-up motorists who fail to pay the required toll.

The RTA's Toll Infringement Violation System (TIVS) is being tested and is due to proceed into production in September 2005. This system will also provide a backup in the event of a TCMP failure.

The RTA is further upgrading its electronic tolling back office systems to take full advantage of the services provided by TIVS and TCMP in recovering tolls for the RTA-operated tollroads.

IMPROVED SIGNPOSTING

Signposting provides clear guidance and information to motorists using the State Road Network. The RTA, with Tourism NSW and others representing the tourism industry, continues to play a lead role in the development of new tourist signposting strategies. Provision of new signs for new road links, such as the Cross City Tunnel, Lane Cove Tunnel and WestLink M7, and the upgrade of existing signs are an important focus of the RTA.

MAINTAINING TRAFFIC FACILITIES

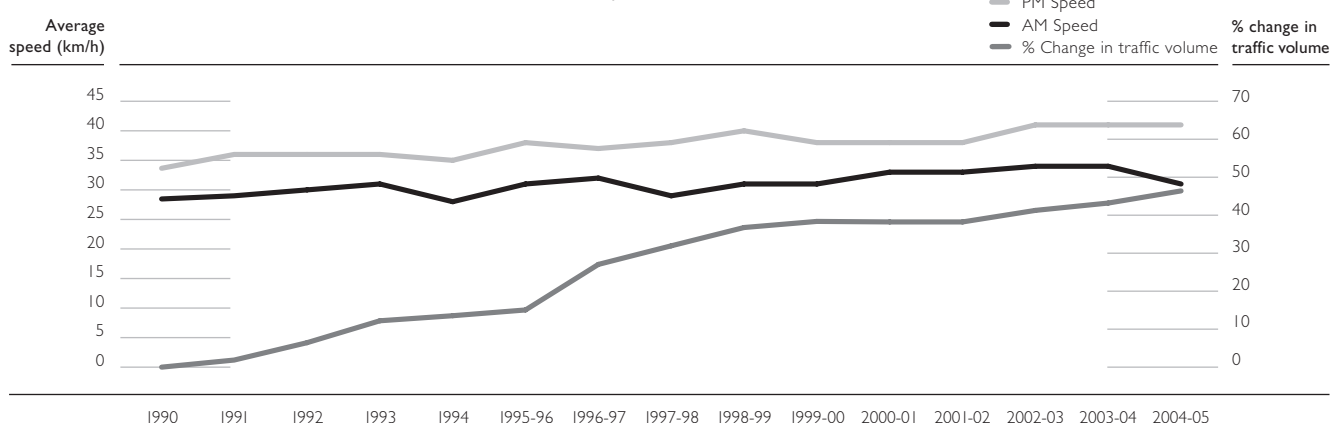
The RTA manages traffic facilities to ensure they remain in suitable condition and to minimise costs. Traffic facilities include traffic signs, lines and other pavement markings, traffic signals and other electronic equipment.

Treasury has approved an advance of \$18 million over three years for the bulk replacement of high voltage incandescent traffic signal lamps with LED (light emitting diode) lamps. Replacing these lanterns with LED lanterns brings long-term environmental benefits, reduced power charges and improved visual performance. Tender documents for the first pilot contract were finalised in May 2005 and the contract will be awarded to the pre-qualified traffic signal contractor in July 2005.

ALTERNATIVE TRANSPORT USE

The RTA actively encourages the use of alternatives to private motor vehicle use, including public transport, cycling and walking. As well as environmental and health benefits, the increased use of these transport modes can reduce congestion on the roads. For details, see page 41 of this report.

FIGURE 03: SPEED AND TRAFFIC VOLUME TRENDS FOR SEVEN MAJOR ROUTES TO AND FROM SYDNEY



FUTURE CHALLENGES:

- Continue to provide an appropriate level of maintenance despite reduced funding under the Federal Government's AusLink Program and associated higher vehicle mass limits.
 - Continue a program to strengthen older RTA bridges.
 - Continue to implement the State Government's ongoing accelerated maintenance and rebuilding program for RTA roads using the increases in various RTA charges, including the Sydney Harbour Bridge toll, announced in December 2001.
 - Continue to work with local government, internal providers and industry to implement the Road Maintenance Reform Package.
 - Complete and implement the Conservation Management Plans for State heritage timber truss bridges, with NSW Heritage Office endorsement.
 - Progress the Sydney Orbital road network by continuing construction of the Westlink M7 and Lane Cove Tunnel.
 - Facilitate the opening of the Cross City Tunnel to traffic.
 - Progress the Pacific Highway upgrade, including Karuah Bypass, Taree to Coopernook, Bundacree Creek to Possum Brush, Coopernook Bypass, Brunswick Heads to Yelgun and Karuah to Bulahdelah Sections.
 - Progress the Princes Highway upgrade, including the North Kiama Bypass.
 - Progress the Great Western Highway upgrade in the Blue Mountains.
 - Continue to implement urban design corridor strategies to ensure a whole of Government approach to land use and transport planning.
 - Complete the Old Windsor Road/Windsor Road upgrade.
 - Complete the construction of the North West T-way
 - Implement the Central Coast Transport Action Plan.
 - Duplicate the Alford's Point Bridge.
 - Progress development of concept proposal and preparation of an Environmental Impact Statement for the F3 Freeway to M2 Motorway Link.
 - Continue to maintain consistent travel times through network operations and effective management of incidents and special events.
 - Design new network developments that integrate into the road transport system.
 - Implement Intelligent Transport Systems, using electronic tolling and other innovative equipment to improve traffic flow and traveller information.
 - Continuously improve the efficiency of traffic facilities maintenance and, in particular, replace high-consumption incandescent traffic signal lamps with more energy-efficient LED lanterns.
 - Maximise NSW road user knowledge of changes to road rules and traffic facilities.
-

02 POSITIVE ROAD SAFETY OUTCOMES

INTERMEDIATE RESULTS

Safer road user behaviour, vehicles and road environment.

Kirribilli 1943

STRATEGY

Maximise NSW road user competence and knowledge.

Increase community awareness and positive attitudes to road safety.

STRATEGY

Minimise unsafe behaviours and vehicles through appropriate regulation and enforcement.

STRATEGY

Increase market demand for safer vehicles.

Give priority to safety in the design, development and maintenance of infrastructure.



FATALITIES

There were 512 fatalities on NSW roads in 2004-05 (preliminary figure).

The rate of fatalities per 100,000 population is an internationally accepted method of measuring road safety performance across different jurisdictions. In 2004, NSW had a fatality rate of 7.6 fatalities per 100,000 population, a rate which is lower than that for the whole of Australia (7.9). Of all the Australian States and Territories, only the ACT (3.1) and Victoria (6.9) had a lower fatality rate than NSW in 2004.

The current rate for NSW also compares favourably with the most recent results for a number of other OECD countries – Germany (8.0), France (10.1), OECD Median (11.4), New Zealand (11.5), and USA (14.8). The best performers are geographically small jurisdictions: Great Britain (5.4), Sweden (5.9), Norway (6.2) and Netherlands (6.3).

FACTORS INVOLVED IN FATAL CRASHES

A study of the calendar year ending 31 December 2004 (preliminary figures) revealed that:

- Speeding was a factor in around 38 per cent of fatalities.
- At least 16 per cent of fatalities were the result of an incident involving a driver with a blood alcohol level above the legal limit.

- At least 19 per cent of people killed in motor vehicles were not wearing available restraints.
- Driver fatigue contributed to about 16 per cent of fatalities.
- At least 12 per cent of motorcyclists killed were not wearing helmets.

COMPETENT ROAD USERS

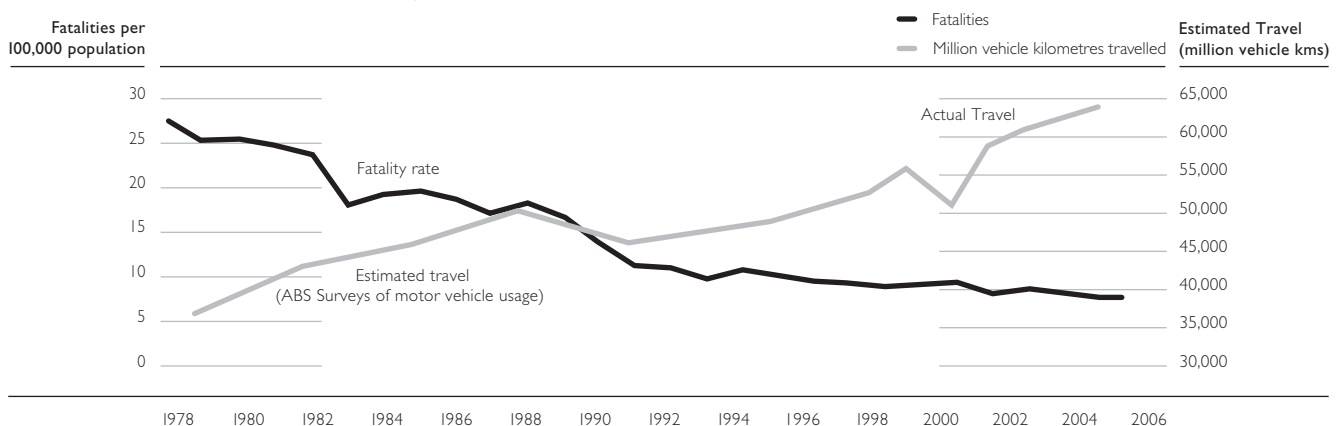
SPEED MANAGEMENT

Trials of in-car digital speed cameras for heavy vehicles and point-to-point speed cameras were conducted through the year. Point-to-point speed measurement is a relatively new technology which uses two fixed speed cameras to identify a vehicle by number plate recognition and calculate the average speed for the journey between the two points. The system was trialled at two locations on the Pacific Highway and one on the M4 Motorway.

The purpose of the trial was to:

- Evaluate the viability and suitability of different speed detection technologies.
- Develop policy and procedures for the effective implementation and ongoing management of a point-to-point enforcement program.
- Evaluate the potential road safety benefit through analysis of trial speed data.

FIGURE 10: TRENDS FOR FATALITIES PER 100,000 POPULATION AND MOTOR VEHICLE TRAVEL SINCE 1978



Data collected during the trial is being used to assess driver behaviour over various distances and to determine the potential of point-to-point systems to reduce speed across the NSW road network.

DRUG DRIVING CAMPAIGN

A drug driving campaign was implemented targeting heavy vehicle drivers and operators. The aim of the campaign was to reduce the incidence of truck drivers using drugs to combat fatigue. The campaign included radio advertisements, posters at rest stops and magazine/press advertisements. Operators were targeted with a direct mail information kit which included a letter, a brochure for operators and drivers and a poster.

SEAT BELT CAMPAIGN

The RTA implemented a Statewide campaign to encourage heavy truck drivers and operators to promote and use seat belts. The focus of the campaign was the fact that seat belts are effective for improving truck drivers' safety. Operators as well as drivers were targeted, encouraging operators to make sure their trucks have comfortable and working seat belts, and to encourage their drivers to use them.

Evaluation of previous RTA campaigns indicated that the proportion of heavy vehicle drivers saying they always wear a seat belt increased from 39 per cent to 48 per cent. The 2005 campaign, completed in June, reinforces the messages of the earlier campaigns.

HEAVY VEHICLE DRIVER FATIGUE CAMPAIGN

A driver fatigue campaign targeted at heavy truck drivers and trucking companies provided practical information on the causes of driver fatigue and ways to avoid it. Operators were encouraged to meet their legal obligations by ensuring they managed their rosters and schedules to prevent fatigue.

SOBER DRIVER PROGRAM

An independent evaluation of the Sober Driver Program was being undertaken and is expected to be finalised in March 2006. The evaluation, which includes interviews with participants, facilitators and magistrates, should reveal the effectiveness of the program in reducing drink drive re-offending.

The nine-week program helps participants understand the effects of drink driving on themselves and the community and aims to reduce re-offending by participants. The program is jointly funded by the RTA and Motor Accidents Authority and is delivered by the Probation and Parole Service of the Department of Corrective Services.

ALCOHOL INTERLOCKS

The Alcohol Interlock Program continues to be available for courts to use as an option in the sentencing of drivers convicted of certain serious drink driving offences. There are currently over 200 drink drivers participating in the interlock program. An alcohol interlock is an electronic breath-testing device which prevents a motor vehicle from being started if the concentration of alcohol in the driver's body exceeds the pre-set limit of 0.02.

YOUNG DRIVER DISCUSSION PAPER

The discussion paper, *Improving Safety for Young Drivers*, was released in November 2004. The paper contained 11 potential initiatives, with community comments sought until 28 February 2005.

In December 2004 two initiatives from the discussion paper were announced:

- A ban prohibiting P1 and P2 licence holders from driving certain vehicles.
- A limit of one passenger for 12 months for P1 and P2 drivers who lose their licence due to disqualification for a serious driving offence. This passenger restriction will apply when the licence is re-issued.

These restrictions were developed for implementation in July 2005. Other options canvassed in the discussion paper are being considered.

REMOVAL OF APPEAL RIGHTS

AGAINST DEMERIT POINT SANCTIONS

The *Road Transport (General) Amendment (Driver Licence Appeals) Regulation 2005* was introduced on 17 January 2005 to remove the right of appeal against licence sanctions imposed against unrestricted licence holders who accumulate 12 or more demerit points. This brought NSW into line with the nationally agreed position. The change also removed confusion in Local Courts about whether or not an appeal right existed.

COMMUNITY AWARENESS

SCHOOL EDUCATION PROGRAMS

An external evaluation of the Early Childhood Road Safety Education Program was conducted. It examined the delivery of road safety education to 2,600 pre schools, long day care centres, occasional care centres and mobile/temporary child care facilities in remote communities across NSW. The results indicated a high awareness and use of this program. It confirms that the program is providing quality resources and professional development, and building knowledge, skills and confidence in the teaching of road safety.

More than 3,000 primary and high schools continued to receive consultancy and professional development support across the State.

A new resource for Stage 5 school students, 'Shifting Gears', was launched by the Minister for Roads in October 2004. The resource was developed in collaboration with NRMA Motoring and Services, the Department of Education and Training, the Catholic Education Commission NSW and the Association of Independent Schools. It contains a variety of teaching/learning activities highlighting key road safety messages for 15-16 year olds. 'Shifting Gears' is based on the NRMA's SHIFT 2nd Gear CD-ROM. Activities focus on the complexity of driving, factors which contribute to crashes, risk behaviours, decision making and personal responsibility when using the road.

SAFETY AROUND SCHOOLS PROGRAM

The School Crossing Supervisor Scheme is a component of the Safety around Schools Program. There are 700 school sites with supervisors.

The trial of the effectiveness of flashing lights in school zones was completed and a final report is being compiled. The independent Safety Around Schools Review Panel continued its role in considering submissions from schools on road safety issues.

YOUTH PROGRAMS

The RTA released a new resource for TAFE teachers called 'Shifting up a gear with TAFE NSW'. Developed in collaboration with TAFE NSW and NRMA Motoring and Services, the resource contains a variety of teaching/learning activities which focus on the complexity of driving, factors which contribute to crashes, risk behaviours, decision making and personal responsibility when using the road.

Road safety officers and RTA contractors continued to deliver workshops for parents to help learner drivers become safer drivers. More than 200 workshops were delivered around NSW during the year.

The RTA continued its successful partnership with Youthsafe which undertook a research project with Arabic and Chinese communities to identify key strategies for communication with parents and young people. This project particularly looked at promoting the 'Helping Learner Drivers Become Safer Drivers' parent workshops.

The RTA continued with its 'Notes' and 'Mockingbirds' public education campaigns which target youth speeding.

COMMUNITY INTER-AGENCY PROGRAMS

The RTA continued an effective partnership with local government through the jointly funded Local Government Road Safety Program (LGRSP), which develops road safety initiatives within local communities. By 30 June 2005, 102 of the 152 NSW councils were involved. Eighty one Road Safety Officers are employed in local councils. These officers delivered more than 300 community-based road safety education projects in the past year. The LGRSP is the result of a positive and proactive collaboration between the RTA, the Institute of Public Works Engineering Australia, Motor Accidents Authority and the Local Government Association of NSW and the Shires Association of NSW.

The RTA encourages the community to support, and be involved in, road safety initiatives, particularly at a local level. As well as the LGRSP, other community initiatives included nine Community Road Safety Groups in the Southern and South West RTA regions and four RTA-funded Drink Drive Prevention Officers employed across regional areas of NSW in partnership with Area Health Services.

The RTA provides a toll free 1800 road safety information number and website for road safety publications. During 2004-05:

- 5,302 orders for road safety community education materials were filled.

- About 3.7 million road safety community education publications and other resources were sent to customers.
- The 1800 number call centre processed 4,095 inquiry calls.
- RTA customers ordered 142,861 road safety publications by e-mail via the online road safety resource catalogue.

PUBLIC EDUCATION

During 2004-2005 the RTA's public education campaigns built on existing messages and previously successful road safety campaigns.

The Brain Bus

As an extension to the highly successful drink drive campaign, 'Drinking kills driving skills', an alternative transport scheme known as the Brain Bus was launched towards the end of June 2005. The bus, a 44 seat coach with 'The Brain' decal on the side, is the alternative transport component of Southern Region's 'Snow Safe' campaign which operates every year out of Jindabyne. Alternative transport programs offer a safe way for people who have been drinking to get home, without driving their car.

The Brain Bus promotes the alternative transport program while linking it to the mainstream 'Drinking kills driving skills' message. Other components of the campaign include press, radio, poster and in-hotel merchandise. Early indications suggest an increase in patronage of 30 per cent on previous years.

The launch of the 'The Brain' television commercial in May 2004 helped to make the drink driving issue once again topical with the community. The Brain campaign continued in 2004-05 and was supported this year with a direct marketing campaign targeting 2,500 country hotels and clubs. The direct marketing was designed to encourage publicans to be part of the campaign. The response was very positive across all regions.

Road tunnels

A public education campaign promoting the safety features and procedures in Sydney's road tunnels was developed and conducted in June 2005. The object of the campaign was to raise the awareness of the principles of road tunnel safety amongst frequent, occasional and future tunnel users and bus operators. The key message of the campaign was to educate those road users who may use the tunnel regarding the fundamental principles of road tunnel safety and where to obtain additional information. The campaign included paid communications activity, in-tunnel technology and the RTA internet website. Mainstream radio (breakfast and drive radio spots), radio 'break-in' messages, press, website, brochures and posters were the key communication strategies used to deliver the message.

Aboriginal road safety campaign

Support of the 'Bring the Mob Home Safely' Aboriginal road safety campaign continued with the production of road safety banners and the production of the Aboriginal Road Safety calendar for the second year running. The campaign has been greeted as a welcome addition to the RTA's Aboriginal road safety efforts and has received a positive response from the Aboriginal community.

Geared young driver magazine

The RTA produced two editions of a new magazine for young drivers. *Geared* is a high quality, bold and engaging product, designed to sit comfortably beside other youth magazine titles. It was developed after detailed research into the target market which includes young people from aged 16-25 who have a Learner or Provisional licence.

The 65-page magazine includes articles about safe driving, the licensing system, basic do-it-yourself mechanics, celebrity interviews, drink driving and other high risk behaviour, buying a second hand car and much more. About 110,000 copies of each issue were distributed to young drivers through the RTA's motor registry network.

Reader response was overwhelmingly positive, thanks to the high quality of the writing, design and photography, and the careful crafting of the key messages. The magazine engages with readers instead of "preaching" to them. The RTA plans to produce the magazine twice-yearly.

Other campaigns

Other road safety public education campaigns were supported and delivered. Campaigns included those targeting speeding (urban and country), driver fatigue (the 'microsleep' campaign), railway level crossings, seat belts and 40 km/h school zones.

SPEEDBLITZ BLUES

The 2004-05 cricket season marked the RTA's third year as the major sponsor of the NSW cricket team, the SpeedBlitz Blues. The RTA has signed a second three year contract to sponsor the team. The sponsorship is a key component of the RTA's efforts to raise public awareness and change attitudes to speeding. The team became known as the SpeedBlitz Blues in 2002, under an RTA sponsorship aimed at raising awareness of the dangers of speeding – the single biggest cause of deaths and injuries on NSW roads.

With one ING Cup and two Pura Cup victories during the first term of the sponsorship, the SpeedBlitz Blues have performed brilliantly on the field.

Off the field, the team has shown their commitment to the RTA sponsorship with many squad members participating in the school visits program, 'SpeedBlitz Blues On the Road', promoting the message 'Slow down. Take control' to more than 11,500 young people.

In November, SpeedBlitz Cricket was launched – an online cricket game designed to deliver anti-speeding messages to cricket lovers in a fun and interactive way. To play the game, visitors selected a batsman from the SpeedBlitz Blues team before going in to bat against a fielding team of police officers. Each over had a set speed limit that the batsman must not break, or they would be 'caught out', gain demerit points reflecting the real life demerit points scheme and risk losing their (player) licence. Almost 30,000 games were played during the 2004-05 cricket season.

DRIVER REVIVER

The RTA continued its partnership with volunteer groups including Lions Clubs International, the State Emergency Service, Volunteer Rescue Association and Bushells Tea in supporting the Driver Reviver program in NSW. Driver Reviver sites are places for motorists travelling long distances, particularly during peak holiday travel periods, to break their journey and have a free drink and a snack, with over 90 sites across NSW.

The use of Driver Reviver was promoted through advertising, publicity, variable message signs, the RTA call centre, the Transport Management Centre and the RTA website.

MOTORCYCLE SAFETY

The RTA continued its partnership with the Motor Accidents Authority to develop new motorcycle campaign materials that were launched during Motorcycle Awareness Week in October 2004.

The RTA also continued to work with its key motorcycle safety stakeholder, the Motorcycle Council of NSW, on a group riding information brochure and the protective clothing seminar 'Gearing Up'.

A focus day on motorcycle safety was held in Moss Vale in March 2005. The day was organised by local Road Safety Officers with support from both regional and corporate RTA staff. Information on local crash statistics and various education and engineering solutions was presented to motorcycle stakeholders such as the NSW Police, Department of Health, council traffic engineers, RTA traffic engineers and representatives from the motorcycle community. The aim of the focus day was to use a multidisciplinary approach to address motorcycle safety on key routes such as the Illawarra Highway. Attendees discussed a range of local motorcycle road safety issues and developed strategies for consideration by the relevant agencies.

PEDESTRIAN SAFETY

In February 2005 the RTA published guidelines for implementing 40 km/h speed limits in high volume pedestrian areas. Using these guidelines, 40 km/h speeds limits and associated traffic calming schemes were implemented in 24 town and city centres.

The RTA published *A guide to using motorised wheelchairs* in June 2005. The guide replaces a previous RTA document and clarifies the basic rules and safety issues for using motorised wheelchairs.

ABORIGINAL ROAD SAFETY

Funding was provided to several Aboriginal community projects. The 'On the Road – Aboriginal Driver Education Program' assists Aboriginal people in Lismore and surrounding areas to gain a class C driver licence. An evaluation of the Community Patrols project, which aimed to reduce unlicensed and dangerous driving by young Aboriginal people in the Lismore area, was also funded.

Drink drive and restraint usage campaigns were developed and implemented to target Aboriginal communities in Western NSW. Funding was provided to the Daruk Aboriginal Community

Controlled Medical Service to launch a pilot Aboriginal child restraint hire program in Mt Druitt in Western Sydney.

Targeted communication campaigns were run for Aboriginal events such as the Annual Aboriginal Rugby League Knockout and the National Aboriginal and Torres Strait Islander Week to raise awareness of road safety in Aboriginal communities.

The RTA Western Region developed and implemented a drink drive campaign targeting Aboriginal communities in the Walgett, Dubbo, Moree Plains, Central Darling and Wellington local government areas. The region also ran a restraint usage campaign.

The RTA is an active member of the National Indigenous Road Safety Working Group and participated in the 2004 National Indigenous Road Safety Forum. The RTA supported the 11 recommendations from this forum which have been submitted to the Standing Committee on Transport to inform government ministers on the Australian Transport Council.

ROAD USER SAFETY SUMMITS

A series of summits were held in 2004-05 to discuss various road user issues. The Road Users Summit was held in Sydney in March 2005 and a Country Road Users Summit was held in Dubbo in May 2005. A Heavy Vehicle Summit was planned for early July 2005.

The summits were attended by stakeholder agencies, professional bodies and community representatives. Presentations were made on:

- Speed management – consistency of speed zones; schools zones; speed cameras and wet weather limits.
- Traffic management, driver courtesy, penalties and incentives.
- Country road environment infrastructure, development and maintenance issues.

Issues identified for action or further investigation included:

- Good driver incentives, where drivers with unrestricted licences will earn up to six additional merit points as part of a plan to encourage better, safer driving.
- Changes to the double demerits scheme and a review of other demerit points and fines.
- Consistency of speed zones.
- Improving driver knowledge about sharing the roads with heavy vehicles.
- The impact of extreme weather conditions such as drought and flood on road infrastructure.
- The condition of NSW's 3000 timber bridges.
- Targeted enforcement of compliance of heavy vehicles.
- Heavy vehicle loading issues for farmers and primary producers.

A number of initiatives in response to the summits have been implemented in 2004-05, while a number of others are being prepared for implementation in 2005-06.

REGULATION AND ENFORCEMENT

SPEED PENALTY CHANGE

In February 2005 the Minister for Roads announced changes to the penalty that applied to the offence of exceeding the speed limit by not more than 15 km/h. From Monday, 4 April 2005, the demerit point penalty that applied to the offence was increased from two to three points. The Traffic Infringement Notice fine for light vehicles was reduced from \$130 to \$75. Penalties for all other speeding offences remained unchanged. A comprehensive media campaign was conducted to inform motorists of the change.

EXPANDING POLICE POWERS

As of 24 June 2005, the NSW Police were given expanded powers to immediately suspend and confiscate, on the spot, the licence of any driver caught committing certain serious driving offences. Under the changes, drivers can be removed from the road immediately if they are caught travelling more than 45 km/h over the speed limit, or are deemed to have caused death or grievous bodily harm through the use of a vehicle.

The changes are an extension of existing immediate licence suspension laws for drink driving and follow a review of licence suspension processes by the RTA, NSW Police and the NSW Attorney-General's Department.

DEMERIT POINTS AND FINES REVIEW

In order to improve consistency, a new 15 level hierarchy of fines was developed to provide a rational order of offences and subsequent penalties. The review process resulted in major changes to some fines based on the road safety implications of the offence. Some fines were considered appropriate at their current level but were rounded up or down to align with one of the new 15 fine levels.

Following the Road Users Summit in March 2005, the Minister announced other changes to coincide with the changes to fines and demerit points to be introduced from 1 July 2005. These included the removal of an additional demerit point applied to offences other than speeding, seatbelt or helmet use under the Double Demerit Point provisions, and removal of specific speeding offence categories where the speed travelled is in excess of 130 km/h.

INTELLIGENT ACCESS PROGRAM

The RTA continues to work with Austroads to establish the Intelligent Access Program (IAP). The IAP aim is to implement a voluntary system that monitors freight vehicles remotely using satellites and Global Positioning Systems (GPS) to track each vehicle's location. This enables operators and responsible government agencies to ensure these vehicles operate how, where and when they should. For instance, some large freight vehicles such as B-double trucks are restricted to certain major routes and the IAP approach assists in making sure drivers use only those permitted routes.

This ability to accurately monitor compliance provides opportunities for both agencies and transport operators to optimise the efficiency and safety of freight travel and to effectively manage the road infrastructure (such as road pavement and bridges on freight routes).

In February 2005, the Chief Executive was appointed Chair of the Austroads IAP Committee of Management to oversee the final stages of IAP development, which includes:

- The technical and functional specifications for the IAP.
- Operational guidelines for the management of interrelated parties under IAP.
- The establishment of the Certification and Auditing Group.
- Certification agreements with IAP service providers.
- National model legislation to support the IAP.

The RTA is also leading the development of a certification and auditing program for IAP parties providing telematics services under the IAP.

COMPLIANCE AND ENFORCEMENT

The RTA continued to work towards the successful implementation of new compliance and enforcement provisions, as part of national legislative reforms to improve the heavy vehicle industry compliance.

This included:

- Passage through Parliament of State based legislation contained within the *Road Transport (General) Act 1999*.
- Development of communications materials to assist all parties in the road transport supply chain meet their 'chain of responsibility' obligations under the new laws.
- Working as lead agency through Austroads to develop administrative guidelines to support the nationally consistent application of these provisions.
- Development of training resources for RTA enforcement staff.

Heavy vehicle safety

The *Road Transport Legislation (Speed Limiters) Amendment Act 2005* was introduced to counter tampering with heavy vehicle speed limiters. Under this legislation, any speed limited heavy vehicle which is detected travelling at a speed of more than 115 km/h will be deemed to have a speed limiter which is not functioning correctly. The person responsible for the vehicle will be subject to heavy penalties.

Successful campaigns have been conducted targeting heavy vehicle drivers with messages on the importance of seat-belt wearing, fatigue and the dangers of drug use.

Truckscan in RTA enforcement vehicles

The RTA introduced Truckscan technology in 42 RTA enforcement vehicles. Truckscan is an electronic interface used by RTA Inspectors to:

- Check driver licence and vehicle registration information.
- Validate driver logbook entries against Safe-T-Cam sightings.
- Input inspection details.

Importantly, Truckscan allows inspectors to generate manual, non-photographic Safe-T-Cam sightings. Heavy vehicles can now be detected by Safe-T-Cam at more than 170 road-side locations throughout NSW.

UPGRADE OF SAFE-T-CAM NETWORK

Safe-T-Cam is an automated monitoring system that uses digital camera technology capable of reading the front number plate of heavy vehicles. The system identifies heavy vehicles that are breaking laws, including speeding and traveling beyond prescribed driving hours.

The Safe-T-Cam network was upgraded with the latest generation HYMOD technology during the first half of 2005. The HYbrid MODular processing system has been developed by the CSIRO and provides far greater processing power than the current Safe-T-Cam hardware, which was first deployed in the mid-1990s. HYMOD provides a number of improvements to Safe-T-Cam, including:

- An increase in the digital pixelation of number plate images.
- Improvements in the discrimination of number plate characters that are of similar style and shape (O and Q for example).
- More sophisticated methods of identifying the location of a number plate if located off-centre or obscured.
- Faster processing times, which will allow Safe-T-Cam to perform multiple reads of individual number plates to improve Optical Character Recognition (OCR) accuracy.
- The opportunity to use Safe-T-Cam for other activities, such as point-to-point speed camera enforcement.

As part of the HYMOD upgrade, the CSIRO has upgraded the OCR software, to ensure that Safe-T-Cam has the capability to read the increasingly large number of character font styles used on number plates in both New South Wales and other jurisdictions.

SAFE-T-CAM EXPANSION INTO SOUTH AUSTRALIA

The RTA has been working closely with Transport South Australia to achieve a seamless and integrated expansion of the NSW Safe-T-Cam network into South Australia. The planned expansion has the potential to reduce the number of crashes involving heavy vehicles where speed and fatigue are contributing factors.

HEAVY VEHICLE NOTICE SYSTEM

The RTA introduced the Heavy Vehicle Notice System (HVNS) to all Heavy Vehicle Checking Stations during the first half of 2005. The HVNS represents a major enhancement to Truckscan. The HVNS provides for greater efficiency by allowing RTA Inspectors to electronically record and process traffic infringement notices, breaches, licence suspensions and defect notices at the roadside.

UPGRADE OF HEAVY VEHICLE CHECKING STATIONS

Heavy vehicle checking stations are an important part of the RTA's heavy vehicle enforcement program which consists of periodic inspections, random road-side inspections and Safe-T-Cam.

During 2004-05, the RTA upgraded the Mount White and Marulan Heavy Vehicle Checking Stations. Weigh-In-Motion equipment was replaced and Safe-T-Cam technology was installed. The upgrade will improve the RTA's capability to detect vehicle mass, speed and driving hours offences.

IN-CAR DIGITAL SPEED CAMERA TRIAL

The RTA, in consultation with NSW Police, commenced a trial of in-car digital speed cameras to target speeding heavy vehicles. The trial concluded in March 2005 and recommendations are being finalised.

ENHANCED ENFORCEMENT PROGRAM

The Enhanced Enforcement Program (EEP) is a partnership with NSW Police to improve road safety through a higher level of police visibility and enforcement at strategic times of the year. The RTA contributed more than \$7 million for the financial year to fund operations targeting speeding, drink-driving, fatigue, heavy vehicles, seat belt use and helmet use.

Seven Statewide enforcement operations were conducted and supported by RTA public education campaigns. These advertising campaigns used a mixture of television, radio and press to increase local community awareness of police operations such as RoadSafe, SouthRoads, WestRoads and NorthRoads. In addition to this, double demerit points campaigns were conducted to support Statewide enhanced enforcement police operations including Operation Slow Down, Tortoise Go Slow and Safe Arrival.

Regional enforcement operations across the year saw the RTA, council Road Safety Officers and NSW Police working together to address more local issues. The EEP model was also applied effectively in the 2004-05 review of the Princes Highway with NSW Police and the RTA developing a joint action plan.

NEW DRUG DRIVING LAWS

The NSW Government approved the preparation of legislation to enable a 12 month trial of random roadside drug testing and the compulsory drug testing of any driver, motorcycle rider or supervising licence holder involved in a fatal traffic crash. *The Road Transport Legislation Amendment (Drug Testing) Bill* is expected to commence in 2006.

FIXED DIGITAL SPEED CAMERAS

At the end of the financial year there were 109 fixed digital speed camera sites operating in NSW, including a trial of 13 cameras in school zones. In addition, the RTA continues to test point-to-point speed cameras on the Pacific Highway and the M4 Motorway.

In November 2004, the *Road Transport (Safety and Traffic Management) Act 1999* was amended to clarify the use of symbols, letters and numbers for security purposes on speed camera images.

SAFER VEHICLES

NATIONAL HEAVY VEHICLE INITIATIVES

The RTA has directly contributed to a number of national road transport reform initiatives in conjunction with the National Transport Commission (NTC). These initiatives included proposals for:

- 26 metre B-Doubles: examining issues around allowing longer semi-trailer combinations with greater capacity in conjunction with higher safety levels.
- Third Determination Heavy Vehicle Charges: a national process for setting consistent heavy vehicle registration charges across Australia.
- Improve national data sharing, aimed at ensuring transport regulation is implemented consistently to improve safety, economic and environmental outcomes.

NATIONAL HEAVY VEHICLE ACCREDITATION SCHEME

The National Heavy Vehicle Accreditation Scheme (NHVAS) has been operating in NSW since July 2001 and offers operators accreditation in Maintenance Management and Mass Management. Heavy vehicles over 4.5T Gross Vehicle Mass (GVM) can join the NHVAS provided that operators demonstrate compliance with the business rules and standards via regular audit. In 2004-05 the RTA was involved in the review of NHVAS business rules and the development of a new Heavy Vehicle Auditor Accreditation Scheme. There are a number of accreditation schemes which require different processes for accrediting auditors for each scheme. The establishment of a national pool of auditors, who are able to audit across all the heavy vehicle schemes, should ensure accreditation becomes more accessible. Auditor training and assessment will also move to a more competency-based approach in an effort to increase the number of training providers, particularly in rural and remote areas.

BRAKE AND SUSPENSION TESTING EQUIPMENT

The RTA successfully procured and installed 22 roller brake testing and 34 suspension testing equipment units at 14 RTA Heavy Vehicle Inspection Stations. The new testing equipment will ensure consistent brake, steering and suspension inspections are performed under the Heavy Vehicle Inspection Scheme.

AUSTRALIAN NEW CAR ASSESSMENT PROGRAM (ANCAP)

The RTA has continued its active participation in ANCAP, which has provided consumers with vehicle safety information for 13 years. During 2004-05, 15 tests on different vehicles were conducted under ANCAP.

In November 2004 ANCAP released the results of its research into pole testing of four wheel drive (4WD) vehicles to demonstrate the effectiveness of side airbags.

As a result of this research, ANCAP has adopted pole testing for all side air bag equipped 4WDs. 4WDs not equipped will score zero for the pole test, encouraging manufacturers to provide side airbags. It

has been demonstrated that vehicles that score well in ANCAP tests also perform better in protecting their occupants in real world crashes.

Work was undertaken to relocate the RTA's vehicle testing laboratory, Crashlab, from Rosebery to Huntingwood. The new Crashlab facility includes major upgrades and will become operational in July 2005.

REVIEW OF THE AUTHORISED INSPECTION STATION SCHEME

Work continues on implementing the recommendations of the Authorised Inspection Station (AIS) review. The work aims to improve the AIS scheme including:

- Implementation of a new streamlined booking system for Vehicle Identification Inspection Unit (VIU) inspections.
- Continued development of AIS online, which will benefit stations, the RTA and the environment by providing paperless and speedier communication with stations and allowing AIS to notify the RTA of changes to station details online.
- A planned trial of mobile VIU inspections in regional NSW to facilitate a Statewide approach to inspections by the unit.

SAFER ROADS

BLACK SPOT PROGRAMS

The State Black Spot program targets the road network's worst crash 'black spots' and 'black lengths'. Excluding the Pacific and Princes Highway projects (see below), a total of \$16.5 million of State funds was spent in 2004-05 on State Black Spot treatments. These funds allowed for a number of improvements across the road network including traffic signal improvements, intersection reconstruction and safety barrier installation. Significant improvements were made to 125 crash locations.

The Federal Black Spot program, administered by the RTA, constructed 93 new road safety projects, with total Federal funding of \$14.3 million.

REST AREAS

The RTA built or upgraded 24 roadside rest areas to help drivers and motorcyclists avoid fatigue. Expenditure on these areas during 2004-05 was \$3.9 million, including rest areas on the Pacific Highway. Maps showing light vehicle and truck rest areas are available from motor registries and on the RTA website.

ROADSIDE FACILITIES

The second crash test of wire rope safety barrier (WRSB) on a 200 metre radius curve was conducted by the RTA in March 2005. The test involved a 1600 kg test vehicle impacting the convex side of the WRSB at an impact speed of 80 km/h and an impact angle of 25 per cent. The re-directive qualities of the WRSB were excellent during the crash test with the WRSB successfully containing and redirecting the test vehicle with minimal occupant risk.

PACIFIC AND PRINCES HIGHWAY UPGRADES

In 2004-05, State funding was allocated to road safety improvements on these key highways, including \$21.9 million for the Pacific Highway and \$2.1 million for the Princes Highway. This funding was in addition to major work to upgrade both highways (for details see the **Road development** section of this report on pages 20 to 25).

Initiatives included the installation of wire rope barriers, profile line marking, variable message signs and improved lane delineation and signage. Other projects resulted in upgrades to the road shoulder, rest areas and clear zones. Intersection improvements were completed at several locations including Johns River, Nahiac, Bulahdelah, Jaspers Brush, Meroo Meadow and Bawley Point.

FUTURE CHALLENGES

- Implement programs to satisfy the unique concerns regarding older drivers and older pedestrians.
 - Determine the major causal effects of pedestrian crashes and introduce suitable engineering and education programs.
 - Break the mindset in rural areas that drinking and then driving is acceptable.
 - Change the mindset of people who use drugs, so that they see that driving under the influence is dangerous and not acceptable.
 - Research the extent and effect that mobile phone usage has on driver behaviour.
 - Implement the compliance and enforcement legislative provisions to achieve increased compliance within the heavy vehicle industry.
 - Continue to combine technology and intelligence to cost-effectively target non-compliant vehicles and operators with a poor compliance history.
 - Achieve a balance between road safety, network utilisation, infrastructure protection and vehicle productivity through appropriate heavy vehicle access arrangements and compliance strategies.
 - Encourage accreditation and self-regulation as the basis for improved industry business systems and practices in place of regulatory inspections.
 - Introduce a technology based Authorised Inspection Station scheme that will benefit the community, the environment, inspection stations and the RTA.
 - Maintain the decline in the road toll despite increasing traffic volumes and travel rates.
 - Satisfy the demand on infrastructure in the rapidly growing coastal areas of NSW and ameliorate the road safety concerns.
 - Maintain a consistent, safe and easily recognisable speed regime for the travelling public.
 - If the trial is successful, introduce the point-to-point speed camera system for heavy vehicles and market its benefits to the travelling public.
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