

## **A History of Australian Road and Rail**

### **Before Federation**

From 1788 until the middle of the 1800s, European settlers travelled the colonies by horse drawn transport and by coastal shipping services. Before the arrival of Europeans, Aborigines had used narrow bush tracks for intertribal trade and travel.

The first formal road construction by Europeans in Australia began in Sydney in May 1788. The convicts who made the roads were a source of free labour, but an unwilling work force. Early roads were simply cleared tracks with no drainage and little grading or surfacing requiring regular reconstruction.

Until the late 1860s, colonies increased their effort at extending and upgrading the road network. Roads catered for most travel and Cobb & Co. coaches was expanding providing connections with major centres. The development of railways changed this situation, and by 1880 railways had become faster and cheaper than road transport and, for the next 80 years, would be the dominant transport mode.

Australia's first railway line opened in Victoria between Melbourne and Port Melbourne in 1854. The first railway line in New South Wales opened in 1855, South Australia in 1856, Tasmania in 1868, Western Australia in 1871, Queensland in 1875; the Northern Territory in 1889; and the Australian Capital Territory in 1914.

The railways were operated initially by private companies but a shortage of private funds meant that the colonial governments had to take up the task of continuing railway development.

In 1889, a narrow gauge railway of more than 500 km was built from Palmerston to Pine Creek which became the North Australia railway.

### **1900s and Australia's Federation**

Before Federation, rail transport had been a function of each of the colonies. Little thought had been given to connecting a state's railway system with that of other states. Due to the vast distances involved, states had tended to regard themselves as stand alone entities and not part of a unified nation. By Federation, that sentiment had changed somewhat. However, its legacy remained alive and well, more than 20,000 km of track had been laid by 1901, three different gauges, or widths of track, had been used.

One of the main reasons Australia became a Federation was to establish an integrated national economy. Improving the defence of the colonies was another vital reason. Trade, commerce and defence relied heavily then, as it does now, on the ability to move goods and people freely about the nation.

At the time of Federation, road construction was essentially the responsibility of local government that is, shires and municipal councils. State government involvement was confined largely to the granting of financial assistance to Local Governments.

While transport remained largely a state responsibility, Australia's constitution made it possible for the new Commonwealth Government to play an important role in funding roads, settling priorities,

regulating interstate transport, and the development of arrangements to recover the cost of road and rail development.

Western Australia's price for joining the Federation was construction of a railway line to the eastern states. In 1907 a federal act provided the sum of \$40,000 for a survey of a railway line connecting Western Australia and the eastern states from Port Augusta in South Australia to Kalgoorlie in Western Australia. The survey commenced in 1908 and was completed in March 1909. A railway line was constructed and become known as the Transcontinental railway.

### **1910-1920 a new nation at war**

The Commonwealth was first involved in rail transport when it acquired administration of the Northern Territory in 1911. Along with the Territory came the Palmerston to Pine Creek Railway. The Commonwealth Government saw the need to build better transport links north to improve Australia's defences.

The Port Augusta Railway Act 1911 authorised construction of the line between Kalgoorlie and Port Augusta and opened in 1917. That year, a railways commissioner was appointed to oversee Commonwealth rail interests. Other railways that passed to the commissioner were the Oodnadatta railway later known as the Central Australian railway and the Federal Territory railway, later to become the Australian Capital Territory railway. In 1917, a person wanting to travel from Perth to Brisbane had to change trains eight times.

In 1914, the Hume Highway (then named Sydney Road), which had originated as a roughly defined route traversed by Hamilton Hume and William Hovell in 1824, was declared a main road. The Nepean Highway, the southern artery from Melbourne to the Mornington Peninsula, was declared a main road in 1915.

### **1920s starting to shape a nation**

Shire councils developed out of early local road boards and by the 1920s it became clear that many shires and councils were unprepared for major road responsibilities. A central road authority was required in each state, and by the end of 1926 each state had enacted legislation to establish a state road authority. These state authorities were soon successful in their efforts to improve the road network and reduce its shortcomings. A consequence of their policies was an increase in the amount of interstate traffic.

On 8 February 1921, a royal commission was appointed to inquire into a uniform railway gauge. Subsequently, the commissioner's recommendation of a uniform 4'8½" was accepted.

Commonwealth involvement in the road supply sector commenced in 1922, when the Public Works Act was passed. This act provided for the distribution of a sum of \$500,000 to the states on a dollar for dollar basis. The Commonwealth's main objective was to assist the states to alleviate unemployment, and the money was to be spent on maintenance of roads outside city areas, with all expenditure requiring approval by the Commonwealth Government.

The Commonwealth introduced its first specific purpose grant for road construction by providing \$1 million under the Main Roads Development Act 1923.

Between 1923 and 1926, the Cairns Range Road, the major route from Cairns to the inland areas of Georgetown and Croydon, was built.

In 1929, the Oodnadatta line was extended to Alice Springs and, in the same year, the North Australia line reached Birdum in the Northern Territory.

In the mid 1920s, the Commonwealth considered how it might take a national approach to road design and construction and as a result, the Commonwealth Government passed the Federal Aid Roads Act 1926. Its purpose was to establish a basis for the development of Australia's first national roads program.

### **1930s the Depression**

The 1930s Depression slowed road development in Australia. Prior to the Depression, states were collecting substantial motor vehicle registration fees for road improvements. So when motor vehicle ownership fell during the Depression revenue declined. Likewise, expenditure on construction and maintenance, particularly on main roads, decreased. Rural roads were less affected since some unemployment relief funds were used to finance road work.

Despite the effect of the 1930s Depression on road revenue, the 1920s and 1930s were a time of considerable technological innovation. Great advances were made in the construction of lightly used roads and in surfacing techniques during this period, with the large scale development of bituminous pavements. Binding of local gravels with tar and bitumen produced a smooth surface for traffic that was cheaper, safer for motorists and less dusty.

In 1934, for the first time, road executives from all states conferred and exchanged views on road administration and engineering. Until 1959, these annual gatherings were known as the Conference of State Road Authorities; the title then changed to the National Association of Australian State Road Authorities, the forerunner of the body known today as Austroads.

In 1937, the Federal Aid Roads and Works Act 1937 was introduced. This act established what the Commonwealth would grant the states over a 10 year period and related to tax on petrol, customs and excise duties.

The 1930s also saw the opening of the Sydney Harbour Bridge; a standard gauge line connecting Brisbane with the New South Wales system; and the first set of traffic lights in Sydney.

A significant change in the rail network occurred when the line between Port Augusta and Port Pirie, originally narrow gauge as part of the narrow gauge line to Alice Springs was converted to broad gauge. This eliminated one trans-shipment point in the transcontinental journey.

### **1940s World War II**

With the outbreak of World War II, a dramatic change occurred in the Commonwealth Government's road construction priorities, with the obvious need to ensure a supply route to the north. The Barkly and Stuart Highways featured prominently in this program. The development of a system of major arterial roads was hastened as arterial roads and bridges were strengthened to support heavy army traffic. In August 1940, the Federal Government decreed that an all weather road be built between Tennant Creek and Birdum. Once the Barkly Highway was finished, the highway from Birdum to Darwin was extended.

Until 1941, the only land connection between Western Australia and South Australia was by telegraph line and railway. During the war, a road crossing the Nullarbor was formed by simply grading the surface.

As part of the war effort, the Allied Works Council was formed in 1942 to plan and supervise road development. Army and civilian construction authorities shared the task of developing the road network.

In 1947, the Chifley Government introduced the Commonwealth Aid Road and Works Act 1947. Road grants were increased, as were grants for minor rural roads. In percentage terms the minor rural roads grants rose from about 16 per cent of the total grants in 1947 to 29 per cent in 1948 and 34 per cent in 1949.

After World War II, the Australian Government passed legislation to fund the standardisation of the Victorian and South Australian railways, but neither state took the opportunity presented, with one minor exception. The South Australian Government used Commonwealth funds to convert the narrow gauge Mount Gambier line to broad gauge.

### **1950s Australia booms**

The post-war baby boom and increased immigration brought rapid growth to Australia's towns and cities. The growth in the number of vehicles and traffic increased greatly, and governments across Australia pursued road construction with great vigour. In Western Australia, for example, the new Causeway Bridge over the Swan River in Perth was opened. It was the third causeway structure to have been provided there since European settlement.

In December 1953, Perth saw its first traffic signals. The pattern of growth for that region changed in 1959 with the opening of the Narrows Bridge and Kwinana Freeway in November. Roads in the wheat belt and the goldfields were constructed, and the Great Eastern Highway was sealed between Perth and Kalgoorlie by 1954.

In the Commonwealth Aid Roads Act 1954, road grants were again increased and minor rural roads were to receive 40 per cent of the total grant.

By the late 1950s, Commonwealth financial commitment to roads increased substantially. With the Commonwealth Aid Roads Act 1959, the Menzies government sought to encourage states to make a greater contribution to the total road budget from their own sources of revenue.

### **1960s transport economics**

During the 1960s, there was a concerted effort to complete the bitumen surfacing of the major state highways. In New South Wales the Barrier, Mitchell, Newell, Snowy Mountains and the Oxley Highways were all sealed.

From 1961 to 1977, under the Beef Cattle Roads Grants Acts, funding was made available for construction of beef cattle roads, mainly in Queensland and Western Australia. This funding provided previously inaccessible cattle growing areas with a network of suitable roads.

In 1961, the first four lane section of the Hume Highway was constructed in Craigieburn, Victoria, and in 1966 the last remaining unsealed section of the Princes Highway was sealed, allowing motorists to drive from Melbourne to Sydney via the coast entirely on a paved surface.

In 1962, Melbourne was linked to New South Wales by a standard gauge line. Six years later the standard gauge link between Perth and Kalgoorlie was built, and in 1969 the Port Pirie to Broken Hill line completed the standard gauge transcontinental connection.

In 1964, the Commonwealth Bureau of Roads was established, operating until 1975. Its task was to investigate and report to the minister on matters relating to road transport so that the government could consider grants of financial assistance to states.

In Western Australia, major mining developments in the Pilbara were undertaken, and the North West Coastal Highway from Carnarvon to Port Hedland was improved. This project included the building of 30 bridges which were completed in the next decade.

In 1969, a Bureau of Roads report was Australia's first attempt to apply economic criteria to an analysis of Australia's road needs and funding. It estimated that about 80,000 road projects, at a cost of more than \$7 million, would be required. In 1977, the bureau's work was taken up by the Bureau of Transport Economics, later to become the Bureau of Transport and Communications Economics, and, today the Bureau of Transport and Regional Economics.

### **1970s a national rail system**

The Indian Pacific passenger train commenced service in 1970 between Sydney and Perth.

In 1972, a second survey was undertaken by the Bureau of Roads. One of its recommendations was provision be made for national highways. Although national highways had been discussed by road authorities as early as 1956, and adopted by Labor as part of its transport policy, it was not until the submission of the bureau's report that the Commonwealth Government deemed it a matter worthy of action.

In 1974, the government decided to assume full responsibility for the funding of national roads. Its road policy was enshrined in three acts: the National Roads Act 1974, the Roads Grant Act 1974, and the Transport Planning and Research Act 1974.

The national highway system comprised the major links between the mainland state and territory capital cities, as well as the Brisbane to Cairns and Hobart to Burnie links. The Sydney-Brisbane link was via the New England Highway and, between Sydney and Melbourne, via the Hume Highway. The original national highway was about 16,000 km long. It continues to remain a vital link in our road transport network. The original network, together with other roads and now interstate railways has been subsumed into the much larger AusLink Network. The state road authorities act as design and construction agencies on behalf of the Australian Government.

During this decade, road building technology moved into the computer age with the introduction of automated equipment, pavement monitoring vehicles in 1975 and skid-resistant measuring vehicles in 1975.

In the early 1970s, all publicly accessible rail services in Australia were operated by government agencies. To improve the efficiency of Australia's rail authorities, the Commonwealth Government offered to take over all the state owned entities and create one national rail operator.

In 1975, the Australian National Railways Commission, replacing the Commonwealth Railways Commission, was established. The Tasmanian, South Australian and Commonwealth

governments entered into agreements to transfer the Tasmanian and non-urban South Australian Railways to Australian National Railways.

### **1980s Bicentennial funding**

Commonwealth control over road investment decisions was strengthened with the introduction of the Australian Bicentennial Road Development Trust Fund Act 1982 and the Australian Land Transport (Financial Assistance) Act 1985.

The former legislation empowered the minister to set standards for national highways. The six-year Australian Bicentennial Road Development Program was designed to achieve a substantial upgrading of the road network by Australia's Bicentenary in 1988, with particular emphasis placed on the national highways. This was financed using an excise surcharge on petrol and diesel fuel of one, then later two cents per litre.

The Australian land transport program provided funding for both construction and maintenance on roads. It also provided for rail and road research, road safety, promotion and research, and mainline rail.

From the inception of the former National Highway System to our Bicentenary in 1988, more than \$5,100 million had been spent on national highway projects in Australia. For the first time, the capital cities and major towns were linked by a dedicated network of sealed highways. Achievements had included almost 4,000 km of new road construction; extensions of four-lane carriageways to 1,156 km; and the construction of town bypasses and new alignments.

On 16 December 1989, the last section of the national highway, between Port Hedland and Halls Creek, was sealed.

In the early 1980s, a completely new standard gauge line was built from the transcontinental line at Tarcoola to Alice Springs, replacing the former flood prone narrow gauge line via Maree, and in 1982 the Adelaide-Port Pirie line was converted to standard gauge. This allowed standard gauge operations between Perth and Adelaide and Sydney and Adelaide for the first time.

### **1990s extending the national transport system**

At a series of meetings in 1990 and 1991 the Australian Government negotiated a division of responsibilities for road funding. The Australian Government agreed to take full responsibility for funding the national highways, states and territories took responsibility for arterial roads, while local governments retained responsibility for local roads.

The Australian Government also agreed that the national highway would be extended to include the Melbourne-Brisbane and Sydney-Adelaide interstate highways and urban road links through Sydney, Melbourne, Brisbane, Adelaide and Perth, connecting to the national highway. This extended the national highway to 18,500 km.

In June 1995, Melbourne and Adelaide were linked by a standard gauge line and one month later, a private rail operator started a Melbourne to Perth freight service. In 1998 the Indian Pacific train was sold by the government to a private operating consortium, and although it had excellent usage, it was operating at a financial loss.

In 1997, the Australian Rail Track Corporation was created as a 'one-stop shop' for rail operators seeking access to the interstate standard gauge rail network between Brisbane and Perth.

With the sale of Australian National Railways completed in November 1997, the track in Tasmania and intrastate lines in South Australia were leased to the new owners. Thus ownership of the mainline rail network in Australia had come full circle: from private ownership in the mid 1800s, through to government ownership, and then to management by a private company at the turn of the 21st century. State governments still own some of the track and branch lines, and retain ownership of suburban train lines.

### **2000s AusLink**

In May 2002, the Australian Government announced its plan to create a new national land transport policy to be known as AusLink. This new policy would replace the system of federal funding for transport infrastructure negotiated in 1991. Under AusLink, separate Commonwealth funding for road and rail programmes would be pooled into a single, flexible program.

On 15 January 2004, the first train left Adelaide for the two-day trip to Darwin. The AustralAsia Railway had completed the final link in Australia's railway network and created a new transport system for the export and import of goods between Australia and the economies of Asia and beyond.

Seven thousand workers used 5,000 tonnes of material to build the 1,400 km Alice Springs to Darwin railway. It cost \$1.3 billion, with the Australian Government contributing \$191 million.

In June 2004, the Australian Government released the AusLink White Paper. AusLink is Australia's first national land transport plan since Federation.

AusLink is designed to achieve better national land transport planning, funding and investment decision making. The Australian Government established AusLink to increase investment in land transport, improve long term planning, encourage the best ideas and solutions, and target investment to achieve the best outcomes.