

# 2.1 overview of NSW transport industry

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The following transport industry overview provides information on the rail, bus and ferry sectors in NSW. It provides the context for the following three industry reports – the Annual Rail Safety Report, the Annual Transport Reliability Report and the Cross-Modal Transport Safety Report.

The overview outlines:

- the composition and extent of the relevant transport network;
- the nature of each sector's service provision;
- the role of safety accreditation and the legislative framework for each sector, including current legislation and a synopsis of forthcoming reforms; and
- any definitions of terms required.

# rail sector

## rail networks in NSW

In NSW there are about 60 million train kilometres travelled by passenger and freight trains each year. This represents about one third of all train kilometres travelled in Australia.

These journeys traverse over 10,000 kilometres of track and associated infrastructure such as stations, bridges and supporting structures, tunnels, overhead wiring, signalling, communication and train control systems.

There are three major rail networks in NSW:

- the Metropolitan Rail Area Network spanning the Sydney metropolitan area, Central Coast, Blue Mountains and Illawarra lines;
- the Defined Interstate Rail Network (DIRN) and the Hunter Valley (that includes the non-metropolitan interstate and Hunter Valley rail lines); and
- the Country Regional Rail Network.

There are also various short privately-owned lines, almost all of which are connected to the major networks.

Around 2,670<sup>1</sup> track kilometres of the NSW Metropolitan Rail Area Network is equipped for use by electric trains. This network is owned and maintained by RailCorp.

The non-metropolitan interstate rail lines (the DIRN) and Hunter Valley rail lines previously under the control of the Rail Infrastructure Corporation (RIC) were leased to the Commonwealth-owned Australian Rail Track Corporation (ARTC) in September 2004.

RIC continues to manage the remaining non-interstate non-Hunter Valley Country Regional Rail network, and contracts ARTC to provide maintenance services and the overall management of rail movements (such as train control and signalling).

Since 2004, NSW has been increasingly integrated into a national rail network from Western Australia to Queensland largely carrying freight.

The following table and map provide an indication of the relative size of each network, as reported by each track owner.

The following map outlines the area each of the main three networks covers.

1. As advised by RailCorp October 2006. The Metropolitan Rail Area Network is defined under the Transport Administration Act 1988.

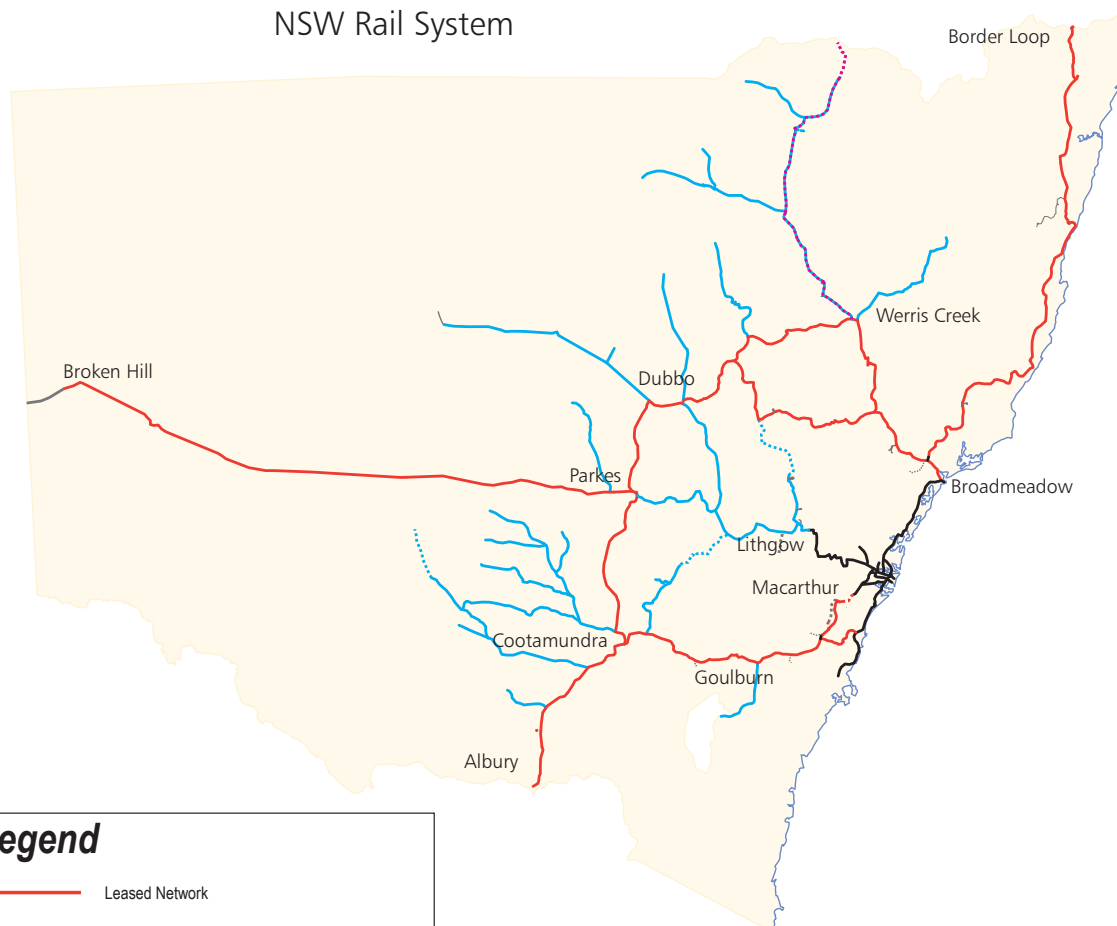
## Network Track Kilometres in NSW 2005-06

Network	Track Kilometres (operational)
DIRN and Hunter Valley	3,826
Country Rail Network	3,100
RailCorp	3,236
Other*	730
<b>Total</b>	<b>10,892</b>

Statistics are based on information supplied by accredited railway organisations.  
For a definition of network track kilometres, see the definitions on page 118.

\*This category includes tourist and heritage operations, commercial passenger operations such as Veolia Transport (monorail and light rail) and Perisher Blue, and freight operations.

### NSW Rail System



## rail service provision

The two primary services delivered by rail are passenger transport and freight movement. “Passenger” in this context refers to both passengers needing to move around the network for business/work purposes and those who are using it for recreational and cultural purposes.

### Passenger rail services

RailCorp is the major provider of rail passenger services in the Sydney metropolitan area via its CityRail business unit, and in regional NSW through its CountryLink business unit.

The CityRail fleet carries over 273 million passenger journeys each year. On an average weekday there are about 2,500<sup>2</sup> services carrying over 900,000<sup>2</sup> passengers from 304<sup>2</sup> stations.

The CountryLink fleet carries some 1.7 million passenger journeys to regional NSW and interstate destinations. Great Southern Railway Ltd, operator of the Indian Pacific, also provides an interstate passenger service between Sydney and Perth.

The following table lists the five largest passenger operators in NSW.

#### Top 5 Passenger Operations in NSW (by passenger journeys) 2005-06\*

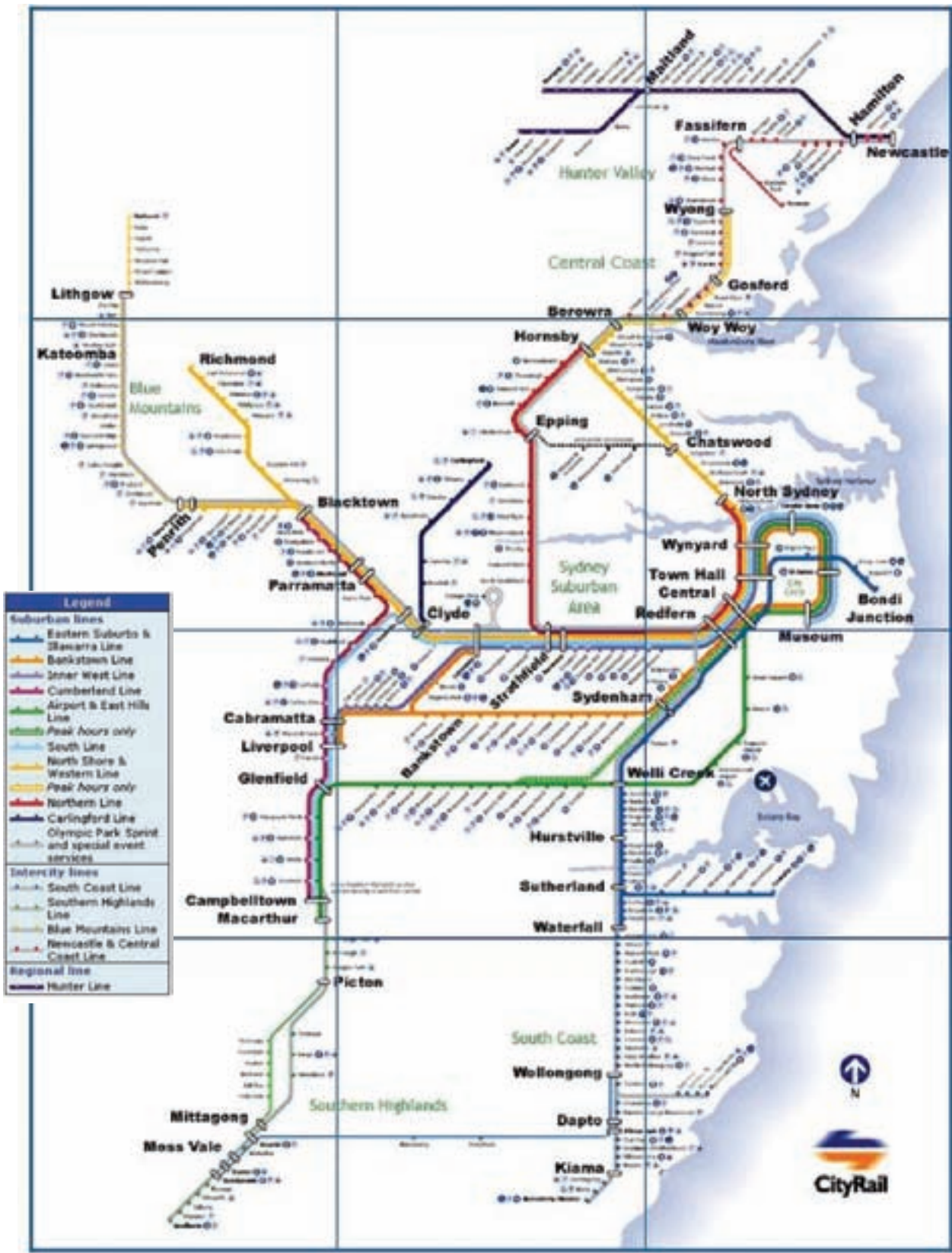
Operator	Passenger Journeys	Train Kilometres
RailCorp - City Rail	273,660,220	34,952,295
Veolia Transport - Light Rail	2,960,298	494,670
Veolia Transport - Monorail	2,512,516	214,687
RailCorp – Countrylink (rail services)	1,740,396	3,373,889
Perisher Blue Pty Ltd	206,325	78,795

Statistics are based on information supplied by accredited railway organisations.

\*For a definition of passenger journeys and train kilometres, see definitions on page 118.

2. RailCorp, “A Compendium of CityRail Travel Statistics”, Fifth Edition, April 2006

The following diagram outlines the extent of the network on which CityRail passenger train services are offered.<sup>3</sup>



3. CityRail operates trains on the Metropolitan Rail Area Network, and on the DIRM and Hunter Valley lines. This is sometimes referred to as the "CityRail Network", however, this refers to the operation of trains rather than the ownership or control of tracks — which is the basis of "network" used in this report.

Outside of the main NSW network, but covered by the *Rail Safety Act 2002*, are other passenger rail services on self-enclosed networks. The Veolia Transport operated Sydney Light Rail consists of around 15 kilometres of track and 14 stations along a rail corridor of approximately 7 kilometres from Lilyfield to Central Station. It delivers about 2.9 million passenger journeys each year. Veolia Transport also operates the Sydney Monorail from Darling Harbour to the Sydney central business district providing around 2.5 million passenger journeys each year.

The Perisher Blue Skitube Alpine Railway transports passengers approximately 8 kilometres from Bullock's Flat (the main car park) into Perisher Valley and Blue Cow mountain resorts during the ski season. Six kilometres of the track are underground, making it one of the longest train tunnels in Australia.

## Tourist and Heritage Railway Operators

There is a range of tourist and heritage railways that make an important contribution to regional tourism and the cultural heritage of NSW. Most of these rely on volunteer workers, many of whom are current or past rail industry employees. Heritage railways are required to maintain accreditation under the *Rail Safety Act 2002*.

The following table lists the five largest tourist and heritage operators in NSW.

Top 5 Tourist and Heritage Operators in NSW (by passenger journeys) 2005-06*		
Operator	Passenger Journeys	Train Kilometres
Zig Zag Railway Co-op Ltd	60,662	28,382
Sydney Tramway Museum	48,093	6,112
3801 Limited	34,881	42,365
Glenreagh Mountain Railway Inc	19,595	2,754
Illawarra Light Railway Museum Society Ltd	7,200	300

Statistics are based on information supplied by accredited railway organisations.  
\* For a definition of passenger journeys and train kilometres, see definitions on page 118.

Heritage railways that operated services on the mainline during 2005-06 included:

- 3801 Ltd
- Australian Railway Historical Society (ACT Division)
- Lithgow State Mine Heritage Park and Railway
- NSW Rail Transport Museum
- The Rail Motor Society

Heritage railways that operated services on isolated lines during 2005-06 included:

- Campbelltown Steam Museum
- Cooma-Monaro railway
- Glenreagh Mountain Railway
- Illawarra Light Railway Museum
- Millennium Parklands Railway
- Richmond Vale Preservation Co-op Society Ltd
- Zig Zag Railway

Accreditation status is also maintained by the Powerhouse Museum and various regional railway museums, and organisations involved in the maintenance and restoration of rolling stock used by heritage railways.

## Freight Rail Services

Rail is a significant mode of freight transport in NSW and the number of freight movements is increasing each year.<sup>4</sup> A summary of the proportion of freight occurring on each of the networks and general type of freight (coal, grain, minerals etc) is outlined below.

### Proportion of Gross Tonne Kilometres (GTKs) by network and freight type\*

GTKs	Coal	Grain	Minerals	General freight
Metropolitan	4%	1%	1%	7%
Hunter	35%	1%	<1%	2%
Total country interstate	2%	6%	2%	33%
Total country other	>1%	2%	1%	2%
<b>Total</b>				<b>100%</b>

\*Rail Infrastructure Corporation, Networks Usage Data, 2002-03.

The haulage of coal in the Hunter Valley is the single largest rail freight task in NSW, closely followed by general freight moving to or from interstate. This interstate general freight task is predicted to grow significantly in the next decade. Other rail freight services operating in NSW include the transport of grain and mineral products to manufacturing and port facilities. The transport of grain is largely seasonal.

As at 30 June 2006, there were fifteen accredited freight rail operators in NSW. The following table lists the five largest freight operators.

### Top 5 Freight Operators in NSW (by freight kilometres) 2005-06\*

Operator	Train Kilometres
Pacific National Pty Ltd	15,378,572
Interail Australia Pty Ltd	1,173,925
Southern & Silverton Railway Pty Ltd	519,809 <sup>#</sup>
Patrick Rail Operations Pty Ltd	503,412 <sup>†</sup>
Lachlan Valley Rail Freight Pty Ltd	324,000 <sup>†</sup>

Statistics are based on information supplied by accredited railway organisations.

\* For a definition of freight/train kilometres, see definitions on page 118.

<sup>#</sup> Includes the kilometres of the Silverton Tramway Company which transferred its accreditation to Southern & Silverton Railway in early 2006.

<sup>†</sup> Estimated figures.

During the year, rail freight operator ownership experienced some changes. Notable developments included the commencement of operations in the Hunter Valley by Queensland Rail National (QR National) Coal and Freight Division in 2005 and QR National's acquisition of the Australian Railroad Group.

In addition to operators whose core business is rail freight such as Pacific National, QR National and Lachlan Valley Rail Freight, many accredited operators are agricultural or industrial companies such as GrainCorp, BlueScope Steel, Manildra Group and Blue Circle Southern Cement, where the railway is one component of their overall operations. These operators use their own tracks as well as the main railway lines operated by RailCorp, ARTC and RIC.

4. Australian Bureau of Statistics, Rail Freight Movements, Summary, Australia, 2004.

## Infrastructure and rolling stock service providers

Under the *Rail Safety Act 2002*, organisations that construct or maintain railway tracks, other rail infrastructure or rolling stock are defined as “railway operators” and are required to be accredited.

As at 30 June 2006, there were nine accredited manufacturers/constructors and eleven accredited maintainers of infrastructure or rolling stock. RailCorp and ARTC are the largest maintainers of rail infrastructure.

In addition to the in-house facilities provided by major operators, there is substantial outsourcing across the industry of infrastructure and rolling stock services to contracted service providers.

Accredited railway infrastructure contractors include:

- major civil construction and engineering contractors such as the Transport Infrastructure Development Corporation (TIDC), John Holland Pty Ltd, Barclay Mowlem Construction Ltd, and Thies Hochtief Joint Venture; and
- specialist engineering contractors such as Speno Rail Maintenance Australia.

Several manufacturers and maintainers of rolling stock are also accredited including:

- major manufacturers such as EDI Rail Ltd;
- rolling stock suppliers and lessors such Chicago Freight Car Leasing; and
- rolling stock maintainers and refurbishers such as Bradken Rail (Mittagong) and Pacific Rail Engineering.

## railway employees

There are 22,000 employees directly employed by railway organisations (including tourist and heritage volunteers) in NSW according to data reported to ITSRR. An outline of employees of accredited railway organisations during 2005-06 is presented in the table below. This shows the bulk of employees are associated with passenger operations, followed by infrastructure management and then freight operations.

Employees of accredited rail organisations during 2005-06		
Rail Operation	Category	Employees*
<b>Train operations</b>	Freight	3,400
	Passenger	9,800
	Tourist and Heritage	600
	Rollingstock maintenance contractors	1,700
<b>Infrastructure management</b>	DIRN and Hunter	1,300
	Country Rail Network	600
	Metropolitan	3,900
	Infrastructure maintenance contractors	800
<b>Total</b>		<b>22,100</b>

Information based on data supplied by accredited organisations and information drawn from annual reports.

\* Average for the 2005-06 year, including contractors and volunteers as reported to ITSRR under the national incident classification scheme, ON-S2.

## legislative context

### Current legislative context

The NSW *Rail Safety Act 2002* covers all railway activities within NSW, including:

- metropolitan, regional and interstate rail passenger services;
- passenger services on self-enclosed networks such as the Sydney Light Rail and Monorail, and Perisher Blue Skitube;
- freight rail services;
- heritage railway operators and railway museums;
- infrastructure provision and operation; and
- manufacturers, constructors and maintainers of rail infrastructure and rolling stock.

Railway organisations that conduct these activities are accredited under the *Rail Safety Act* on the basis that they have the competency and capacity to safely manage their operations.

## legislative reforms

A number of state and national reforms are underway to improve rail safety management. Details of these reforms are outlined in ITSRR's corporate annual report (Part 1.2).

Significant NSW initiatives include:

- development for implementation on 1 July 2006 of new regulations and guidelines relating to safety management systems, exemptions from accreditation, variations to accreditation, notification of changes to railway operations, notification of occurrences, and safety interface agreements for private sidings;
- development for implementation on 4 August 2006 of proposals for changes to drug and alcohol testing requirements for the rail industry, to improve the accuracy, fairness and efficiency of testing programs; and
- development for implementation on 1 September 2006 of regulations to improve train radio communications.

A national model *Rail Safety Bill* was approved by the Australian Transport Council in June. Also approved was an implementation program to ensure that the Bill and its legislative reforms are implemented in a nationally consistent and coordinated manner in all States and Territories by 1 July 2007. Nationally approved guidelines and compliance codes will assist the industry to achieve national consistency in the administration of rail safety.

## definitions of rail-related terms

A **running line** means all railway tracks (other than sidings and shunting yards) that are used for the through movement of trains inclusive of mainlines, isolated lines and crossing/passing loops.

**Commercial operations** are those railway services operated for reward.

The **mainline** is the running line normally used for running trains. In NSW these are operated by RailCorp, ARTC and RIC.

**Sidings** are portions of railway track connected to a running line or another siding on which rolling stock can be placed clear of the running line and stabled. A **private siding** is owned and maintained by a person who does not own, control or manage the running line with which the siding connects or to which it has access.

**Infrastructure** generally includes the track and its components eg. rails, sleepers, bridges, ballast, and signalling equipment. Generally the term does not include stations or terminals.

**Disused (or unused) lines** are those on which rail operations are currently not permitted.

**Rolling stock** means any vehicle that operates on or uses railway track, excluding road/rail vehicles, which are designed for both uses.

**Network** relates to the connected track and infrastructure, generally owned or operated by a single organisation such as RailCorp.

**Passenger trains** are designed and used for carrying passengers, while **freight trains** are designed and used for carrying freight, such as coal and minerals, grain, fuel, livestock and containers.

The term **track kilometres** refers to the length of operational track (kilometres). This is distinct from the length of the corridor, as a corridor may contain more than one track.

**Track machines** are specialised pieces of rolling stock used on the rails to maintain infrastructure.

**Terminals** are places where freight is loaded onto or unloaded from trains.

**Train kilometres (passengers) (tkm passengers)** refers to the total kilometres travelled in NSW by an organisation's passenger trains.

**Train kilometres (freight) (tkm freight)** refers to the total kilometres travelled in NSW by an organisation's freight trains.

**Tonne kilometres** is calculated by the weight of a train and the distance it runs. This can be expressed as the total weight of a train (gross tonne kilometres or gtk) or the weight of the cargo (net tonne kilometres or ntk).

The number of **passenger journeys** in urban areas measures the number of point to point journeys, irrespective of number of vehicles or mode used for the trip. For non-urban areas, it measures the number of point to point journeys, but each change of vehicle along the route is a separate journey.

## bus operations in NSW

The NSW bus industry is a diverse industry and comprises some 3,400 accredited bus operators. Operators range from internationally based companies operating large bus fleets in the metropolitan areas through to single bus operators providing dedicated school bus services in rural NSW. The industry also has a wide range of coach and tourist service providers, ranging from large coach fleet companies through to single mini-bus type operators.

The Sydney Metropolitan District has the largest number of buses. However, it has a smaller number of operators when compared to that of rural and regional NSW.

The majority of buses in rural and regional NSW are engaged in the delivery of school bus services.

## operating context

It is recognised that buses operate within a road network that is shared by a wide range of vehicles. Many factors in this network can be outside the management and control of bus drivers and operators, such as erratic driving by other vehicles and errant pedestrian behaviour as well as the condition of roads which can impact on the ability of operators to deliver their services.

## legislative context

Public passenger bus and coach services are regulated in NSW under the *Passenger Transport Act 1990*. This includes both regular passenger services provided under contract and the deregulated charter and tourist services. All public passenger bus and coach operators in NSW must obtain an accreditation from the NSW Ministry of Transport to provide their services.

The Ministry of Transport ensures that operators and drivers have the competency to deliver safe services through its accreditation and authorisation processes. For more information on these processes, see the Ministry of Transport's website at [www.transport.nsw.gov.au](http://www.transport.nsw.gov.au)

## reforms in the NSW bus industry

The Government's Bus Reform Program commenced in 2003-2004. The reform program has been based on the Review into NSW Bus Services undertaken by the Hon Barrie Unsworth, as well as the review by the Transport Regulators' Executive Committee into implications for other transport modes of the Special Commission of Inquiry into the Waterfall Rail Accident Report.

The reform program has resulted in the introduction of 15 new Metropolitan Bus System Contracts for the Sydney Metropolitan Area. The contracting arrangements are also being introduced in the outer metropolitan areas including the Illawarra, the Central Coast, the Blue Mountains and the Newcastle/Hunter Districts.

Rural and regional contract changes are also being considered as part of overall reform process.

## Legislative and regulatory reforms

As part of the reform program, the following regulatory and legislative reforms have been introduced:

- In 2004, the *Passenger Transport Act 1990* was amended to introduce the requirement for bus and ferry operators to have documented safety management systems to identify and control significant risks and implement drug and alcohol programs.
- In 2005, the *Passenger Transport Act 1990* was amended to provide for step-in arrangements to maintain regular bus services on termination or expiry of certain existing bus service contracts, or where the Director General determines that continuity of service is threatened.
- In 2005, the *Passenger Transport (Bus Services) Regulation 2000* was amended to prescribe the criteria to be met by applicants for bus operator accreditation and the conditions of accreditation to which bus operators are subject, including requirements in relation to:
  - safety management systems;
  - drug and alcohol programs;
  - compliance and auditing; and
  - security camera and duress alarm systems.

## Accreditation reform

Additionally, the Ministry of Transport is implementing the following key safety related reforms to its accreditation system:

- a new Bus Operator Accreditation System (BOAS) with enhanced safety and auditing requirements; and
- revised standards for security camera and duress alarm systems for buses.

From 1 July 2005, the BOAS requires a three year renewable accreditation process. The purpose of the BOAS is to ensure safe and reliable passenger bus services for the travelling public of NSW. The BOAS is the key measure through which the Ministry of Transport fulfils its responsibilities with regard to bus services under the *Passenger Transport Act*.

Performance under the BOAS is measured through an audit process which involves:

- a program of self-assessment audits performed by bus operators on an annual basis;
- a program of independent audits being conducted as least once during the three year period of accreditation; and
- a program of random and targeted inspection of bus operators performed by compliance officers from the Ministry of Transport.

For more information on audit and accreditation activities, see the Ministry of Transport's Annual Report 2005-06 on its website. For 2005-06 audit and accreditation activity data, see the Cross-Modal Transport Safety Report in Part 2.4.

## Ongoing reforms

The focus of the Ministry's efforts will be the implementation of the reform program outlined above.

The Ministry of Transport is also involved in ongoing discussions with the Roads and Traffic Authority and National Transport Commission on a range of safety initiatives including the introduction of driver fatigue management guidelines and the ongoing development and implementation of national medical fitness requirements for bus drivers.

## ferry operations in NSW

The ferry industry comprises nine commercial operators and employs around 600 people. These range from large operators, such as the Sydney Ferries Corporation with wide geographic coverage of Sydney Harbour, to smaller businesses which focus on specific routes in urban and regional locations.

Approximately 15.5 million passengers are carried annually on ferry services in NSW. Sydney Ferries Corporation transports the vast majority of these – around 14 million. The remaining 1.5 million are shared among the eight smaller urban and regional operators.

The coverage of the ferry network is extensive. Services are available from Yamba to Iluka on the North Coast, in Newcastle, Broken Bay, Brisbane Waters and the Hawkesbury River, and at Pittwater, Church Point.

In the south, services crossing the Port Hacking River from Cronulla to Bundeena and the Royal National Park are offered.

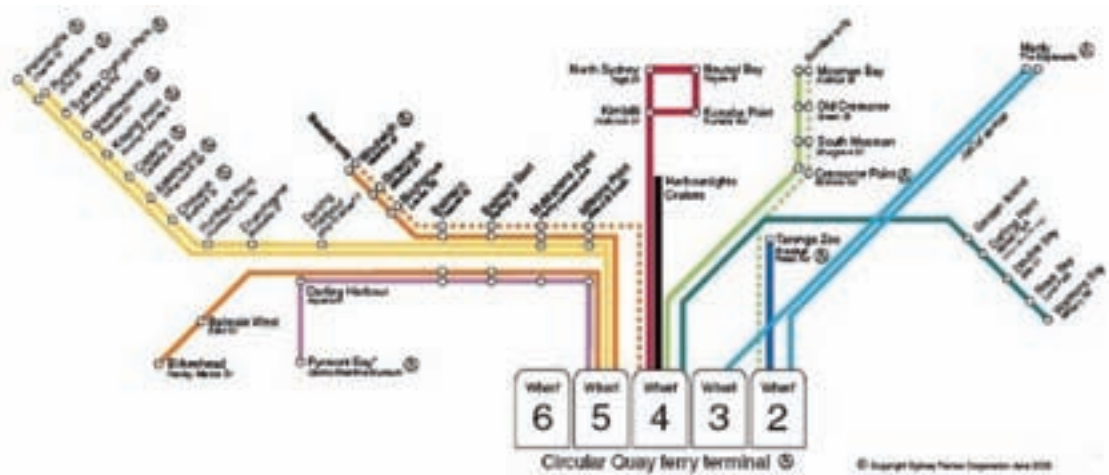


Closer to Sydney, the Sydney Ferries network stretches approximately 37 kilometres from Parramatta in the West, to Manly in the North East and Watsons Bay in the East.

The ferry services operating environment also includes development of wharf infrastructure. There are around 260 public ferry wharves throughout NSW. NSW Maritime is responsible for the safety of ferry wharves and, from March 2006, will progressively assume ownership of all ferry wharves in Sydney Harbour.

NSW Maritime continues to maintain its own wharves, the wharves of the Ministry of Transport and those of the Sydney Harbour Foreshore Authority. In addition, infrastructure maintenance has been undertaken by NSW Maritime on the following local council wharves:

- Birkenhead Point
- Double Bay, and
- Balmain East.



## legislative context

### Safety regulation

NSW Maritime is the safety regulator of all passenger ferries within the navigable waters of NSW, primarily via the *Commercial Vessels Act 1979* and its Regulations. NSW Maritime also has regulatory roles under the *Passenger Transport Act 1990*, particularly in relation to safety management systems and drug and alcohol testing.

Under amendments to the *Marine Safety Act 1998*, NSW Maritime has been given responsibility for inspecting public ferry wharves to ensure the safety of members of the public and ferry operators, along with the power to issue notices for improvements or prohibitions.

Ferries which operate between states are regulated by the Australian Maritime Safety Authority (AMSA).

WorkCover NSW also has a safety regulation role via the *Occupational Health and Safety Act 2000*.

### Economic regulation

Sydney Ferries Corporation accounts for the vast majority of ferry services in NSW and is specifically regulated by the Ministry of Transport. Sydney Ferries Corporation was established in July 2004 by amendments to the *Transport Administration Act 1988* and is a statutory State Owned Corporation under the *State Owned Corporations Act 1989 (NSW)*.

Under the *Passenger Transport Act 1990*, service levels, routes and timetables are set by an instrument between the corporation and the Ministry of Transport.

The fares charged by Sydney Ferries Corporation are determined by the Independent Pricing and Regulatory Tribunal (IPART) in accordance with the *Independent Pricing and Regulatory Tribunal Act 1992*. Matters considered under this Act include consumer protection, economic efficiency, financial viability and environmental protection.

Other ferry operators are not specifically regulated in an economic sense, although they are governed by the range of legislation applicable to all businesses operating within NSW.

## legislative reforms

No new legislative reforms were implemented in 2005-06 in NSW although NSW Maritime continued to contribute to the development of the National Standard for Commercial Vessels.

The following reforms are expected in 2006-07:

- implementation of new wharf ownership arrangements, under which NSW Maritime will own and maintain commuter wharves in Sydney Harbour;
- amendment of the *Passenger Transport (Drug and Alcohol Testing) Regulation 2004*;
- amendment of the drug and alcohol guidelines for ferries under the *Passenger Transport Act 1990*; and
- progressive adoption of the National Standard for Commercial Vessels over the next 2 years – covering all safety-related areas including crewing, construction, equipment, operating practices and the operation of fast craft.