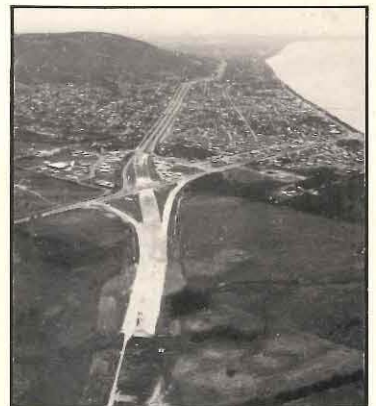
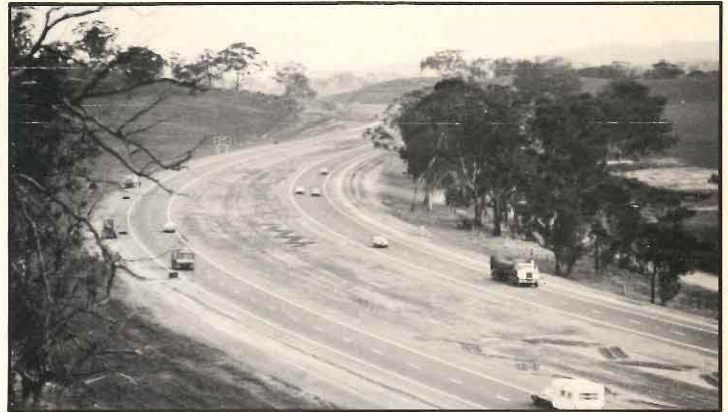
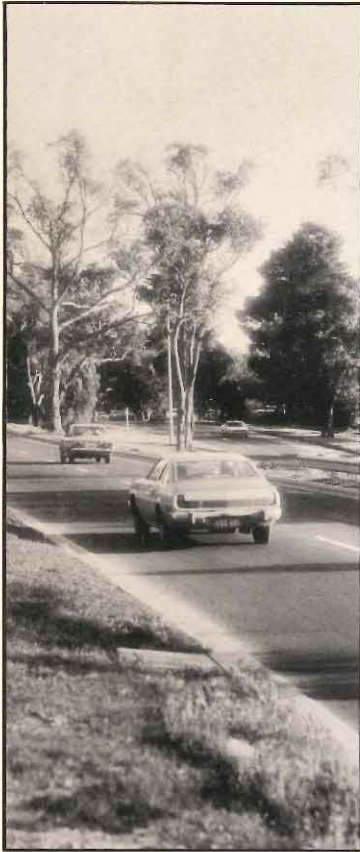


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# Country Roads Board

## *Activity Report*

1982/83



**Country Roads Board  
Activity Report  
1982/83**

As a result of the repeal of the Country Roads Act No. 6229 as from 1 July 1983, there is no requirement for a report to be submitted to Parliament on the proceedings of the Country Roads Board for financial year 1982/83.

An "Activity Report" has therefore been produced in black and white colour only, to record the proceedings and activities of the Country Roads Board in the final year of its existence.

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# *Activity Report of the Country Roads Board*

*prepared by the Road Construction Authority*

This activity report covers the final year of operations of the Country Roads Board, Victoria, the principal objective of which was to create an efficient road system throughout Victoria, within the context of the overall transportation needs of the community.

On 1st July 1983, the general functions of the Country Roads Board were transferred to the newly created Road Construction Authority.

There are approximately 160,000 km of public roads in Victoria, and as at 30th June 1983 24,206 km comprised the State's principal road network.

The lengths of roads declared or proclaimed under the then Country Roads Act were State highways 7,141 km, freeways 403 km, main roads 14,851 km, tourists' roads 798 km, and forest roads 1,013 km.

## **Summary of Activities**

**During 1982/83 the Country Roads Board:**

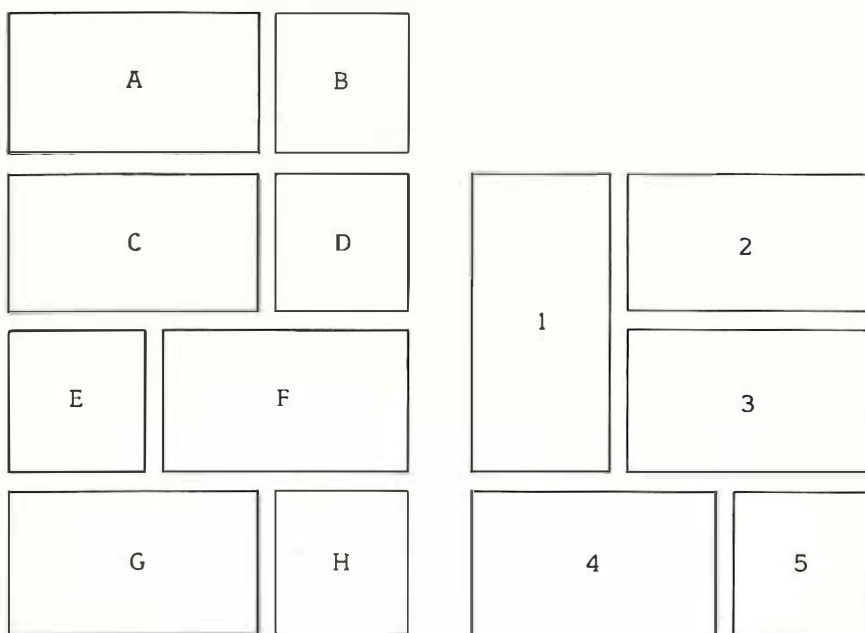
- Expended \$303.96 million on new roads and bridges and the maintenance and improvement of existing roads and bridges
- Completed, and opened to traffic, 20.9 km of freeway
- Sealed or resealed with bitumen 4,961 km of road
- Commenced the construction of 93 new bridges (including 49 commenced by municipal councils with financial assistance from the Board) with an estimated total cost of \$25 million
- Linemarked 38,240 km of roads at a total cost of \$3.9 million
- Entered into 416 contracts with a total value of \$65.9 million
- Allocated \$124.9 million to municipal councils for works on main roads and unclassified roads
- Linked 115 traffic signals under the SCRAM project, bringing the total to 285
- Received 32,229 emergency service calls from motorists
- Replied to 128,547 requests for information on the effect of the Board's road proposals on particular properties
- Paid \$17.5 million in compensation and associated costs for land required for roadworks
- Planted 100,870 trees as part of landscaping
- Published 17 technical papers
- Employed 23 new apprentices, making a total of 78 apprentices
- Provided work experience for 244 students
- Held 70 internal training courses
- Provided training, under the Australian Development Assistance Bureau aid programme, for 10 overseas engineers.



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### Front Cover

- 1 Mt Dandenong Tourists' Road, Ringwood East—reconstructed between Eastfield Road and Velma Grove.
- 2 Hume Freeway, bypass of Seymour—opened on 14 December 1982.
- 3 Murray Valley Highway at Granya Gap, east of Tallangatta—sealing work on the last gravel section of the highway.
- 4 Murray Valley Highway, Echuca—new bridge over the Campaspe River.
- 5 Extension of the Mornington Peninsula freeway, Dromana.

### Back Cover

- A Main Road, Tatura at the Post Office, 1914.
- B Walhalla Road, north of Cooper's Creek.
- C Wahgunyah Bridge. View from Corowa, NSW, looking towards Wahgunyah, 1914.
- D Great Ocean Road, 1921.
- E Main Street of Dandenong, 1913.
- F Princes Highway in Berwick, 1913.
- G Dandenong Road, Prahran, surfaced with 4" of tarred macadam, 1913.
- H Main Coast Road showing the road eroded by wind and traffic. Shire of Bass, 1913.



The Technical Report for 1982/83 will be published as a separate document.

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# Overview

Victoria is the most densely populated State of Australia with some four million people living in 227,600 square kilometres. Over the years an extensive road system has been developed to serve the State and to link Victoria with the road systems of neighbouring States.

## **Development of the Country Roads Board**

The Country Roads Board was a statutory corporation, first constituted under the Country Roads Act 1912. The Board consisted of three Members appointed by the Governor in Council, and the powers and responsibilities of the Board were outlined in the Country Roads Act 1958. Prior to the Country Roads Board being constituted, local government bodies were generally responsible for the construction and maintenance of roads. However, experience in Victoria and overseas had indicated that if the problems associated with road construction and maintenance in a rapidly developing country were to be adequately planned and overcome, it would be necessary to appoint a central authority with wide discretionary powers to work in close co-operation with the existing machinery of local government. The Country Roads Act 1912 was framed with these requirements in mind, and the Country Roads Board was constituted and financially endowed in such a way as to preserve its independence, and to enable it to discharge its duties to the greatest benefit of the State as a whole.

The Country Roads Act 1912 was proclaimed to come into operation on 1st January 1913. At that time, the roads in Victoria were generally in a deplorable condition. Many of them, particularly in various hilly areas of the State, were little better than primitive tracks, and even those roads which had been well constructed as the principal coach routes before the advent of railways had been allowed to deteriorate to a very serious extent.

The first task that the members of the Country Roads Board undertook was an inspection of every municipality to determine the state of roads in Victoria and to advise municipal councils on methods of constructing and maintaining roads. As a result of the investigation, some 8,047 km of roads were nominated for declaration as main roads, this being the major road classification provided for under the Country Roads Act 1912.

Since those early years, the types and classifications of roads increased. In 1924, legislation providing for the declaration of State highways was enacted.

In 1955, the Country Roads Board commenced the duplication of the pavements of certain heavily trafficked sections of State highways, notably on the Princes Highway East between Oakleigh and Dandenong and between Brooklyn and Norlane on the Princes Highway West. With the considerable growth in motor vehicle ownership and the large increase in the volume of traffic using roads, the advantages of high capacity roads with limited access soon became apparent. The first freeway (originally referred to as a bypass road) to be constructed was the Maltby Bypass Road which was completed in 1961.

Tourists' roads and forest roads were other classifications provided for in the Country Roads Act as being the Country Roads Board's responsibility.

The Country Roads Board worked in close co-operation with municipal councils in the maintenance and development of the network of regional and local roads. In addition to financial assistance, the Country Roads Board was able to offer expert technical knowledge and specialist services to municipal councils and staff.

As part of the Government's restructuring of the various transport authorities, the Country Roads Board was restructured as the Road Construction Authority from 1st July 1983.

# Structure of the Country Roads Board

The Country Roads Board, with its Head Office located at Kew, was organised functionally into three Branches—the Engineer in Chief's Branch, the Secretary's Branch and the Chief Accountant's Branch.

## Engineer in Chief's Branch

The Engineer in Chief's Branch carried out the engineering activities of the Country Roads Board including road construction and maintenance. Specialist Chief Engineers were appointed with the titles Planning, Road Design, Works, Bridge, Mechanical, Urban Projects and Management Services.

To facilitate close contact with municipal councils and to decentralise supervision of works under the direct control of the Board, ten regional divisions, each headed by a Divisional Engineer, were maintained. Divisional offices were located at Bairnsdale, Ballarat, Benalla, Bendigo, Nunawading (Dandenong Division), Geelong, Horsham, East Kew (Metropolitan Division), Traralgon and Warrnambool. Materials testing laboratories and depots were also established at each of the rural divisional offices.

## Secretary's Branch

The Secretary's Branch carried out general administration matters and the promulgation of the Board's decisions and directions as well as a number of specialist activities relating to correspondence, personnel, land purchase, control of overweight and overdimensional vehicles, legal and contractual matters, manuals, methods studies, and public relations.

## Chief Accountant's Branch

The Chief Accountant's Branch carried out the recording of the Country Roads Board's receipts and expenditure, the co-ordination of accounting records with the State Treasury and municipal councils, the operation of the Country Roads Board's costing system, and the control of and accounting for stores.

### The Board

T H Russell  
M Eng Sc (Hons), BCE (Hons),  
Dip CE, CE, FIE Aust, FCIT  
**Chairman**

W S Brake  
BCE, CE, MIE Aust  
**Deputy Chairman**  
(Retired 30.6.83)

N L Allanson  
AASA (Senior), JP  
**Member**

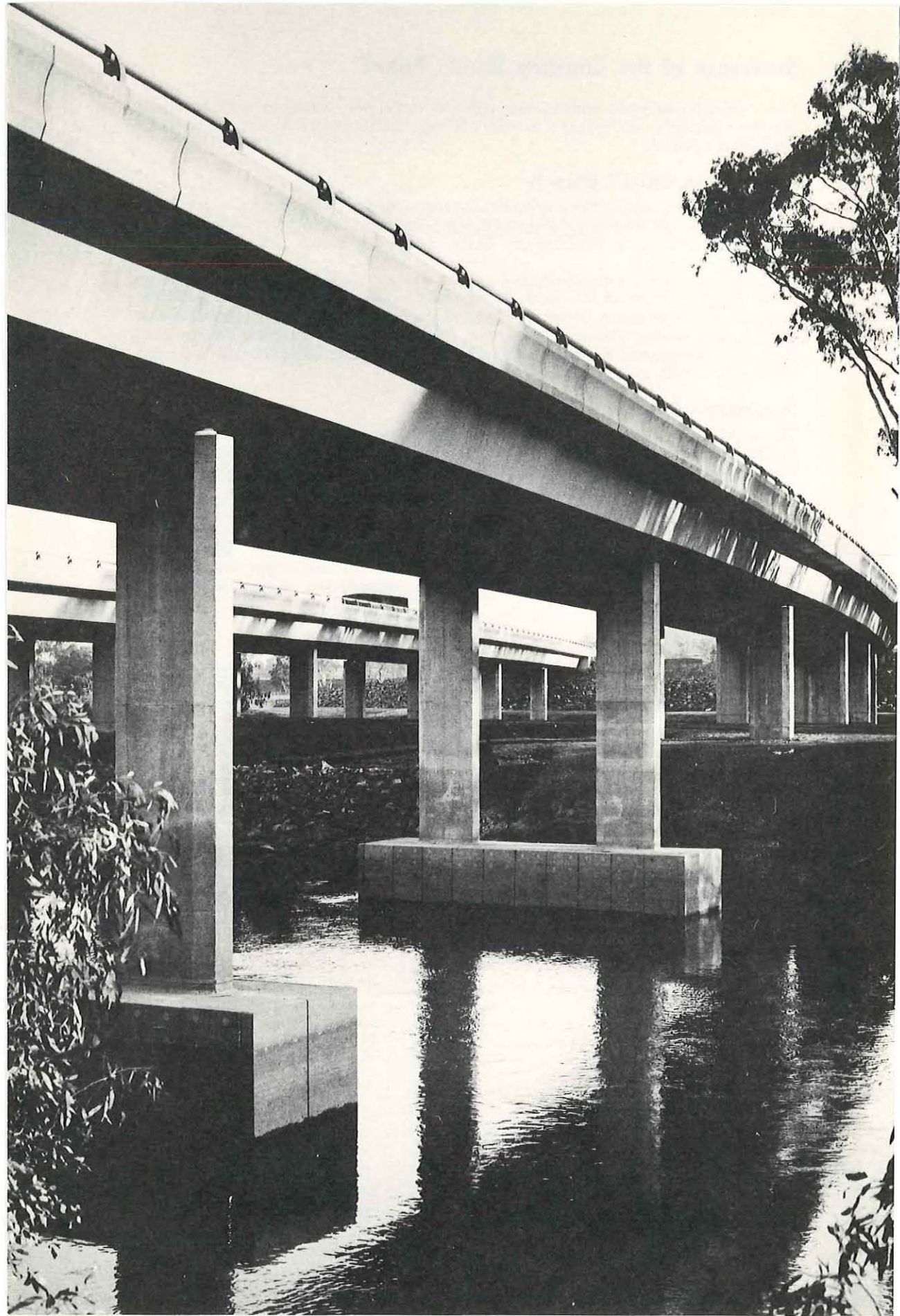
### Branch Heads

K G Moody  
BCE, M Eng Sc, Ph D, MIE Aust  
**Engineer in Chief**

G K Cox  
LLB, AFAIM, JP  
**Secretary**

R J C Bulman  
AASA  
**Chief Accountant**  
(Retired 31.3.83)  
W F Turner  
B Com, AASA, ACIS  
**Chief Accountant**  
(From 1.4.83)







## **Restructuring of Transport Authorities**

During the year, work required to achieve the restructuring of the State's transport authorities proceeded with the objective of having the four new Authorities—the Road Construction Authority, the State Transport Authority, the Metropolitan Transit Authority and the Road Traffic Authority—operational on 1st July 1983.

The Road Construction Authority, which replaced the Country Roads Board, consists of three branches—Planning and Design, Operations and Corporate Administration. Each branch is headed by a Chief General Manager who reports to the Chairman and Managing Director. The Group Manager Personnel and Employee Relations also reports to the Chairman and Managing Director.

The Country Roads Board's Chairman, Mr T H Russell has been appointed as Chairman and Managing Director of the new Authority, with Mr N L Allanson appointed as Chief General Manager - Corporate Administration, Mr R T Underwood as Chief General Manager - Planning and Design, and Mr L M Jones as Chief General Manager - Operations.

As part of the establishment of the Road Construction Authority a new symbol was designed to identify the organisation. The new symbol features the outline of the State of Victoria combined with the schematic letters "RCA" shaped to symbolise roads.

## **Transport Act 1983**

The Transport Act 1983 was passed by the State Parliament during the Autumn Session and came into operation on 1st July 1983.

The Act abolished seven transport authorities: the Victorian Railways Board, the Melbourne Metropolitan Tramways Board, the Country Roads Board, the Road Safety and Traffic Authority, the Transport Regulation Board, the Railway Construction and Property Board, and the Melbourne Underground Rail Loop Authority. In their place, four new Authorities were established: the Road Construction Authority, Metropolitan Transit Authority, State Transport Authority and Road Traffic Authority.

**In addition to the establishment of the new authorities, the Act provides for:**

- the establishment of a Victorian Transport Directorate, with the Minister of Transport as Chairman, to act as a corporate management group for transport. The Chairman and Managing Director, Mr T H Russell, represents the RCA on the Directorate.
- the Ministry of Transport, under the Director-General of Transport, to control planning and policy development, resource budgeting and organisational development.
- the establishment of a Victorian Transport Borrowing Agency to obtain and manage borrowings for transport in accordance with Government policy. The Chairman and Managing Director, Mr T H Russell, is a member of the VTBA.

**The functions of the Road Construction Authority, as detailed in the Act, are as follows:**

- (a) to maintain, upgrade, vary and extend the State's declared road network;
- (b) in conjunction with municipalities, to assist in the maintenance, upgrading and construction of other roads;
- (c) subject to agreement with the Road Traffic Authority to purchase, design, construct, erect, install, maintain and operate traffic signals and other traffic facilities for the purposes of traffic management and control;
- (d) to determine load limits and advisory speed limits for any road, bridge or culvert and to determine maximum speed limits for travel on roads under construction or repair or over bridges or culverts;
- (e) to provide and maintain roadside reserves adjacent to any road for the use or enjoyment of persons using any such road;
- (f) to establish guidelines and requirements for the issue of vehicle mass and dimension permits;
- (g) to compete on the open market for road construction and other projects; and
- (h) to investigate and to promote and undertake research into any matter related to the performance of its functions, powers or duties.

## West Gate Bridge Authority abolition

Pursuant to the West Gate Bridge Authority (Transfer of Functions) Act 1982, the West Gate Bridge Authority was abolished as from 1st July 1982.

Its powers and functions were transferred to the Country Roads Board, as were all Authority personnel.

Further information regarding the operation of the West Gate Bridge for the financial year 1982/83 is on pages 22 to 25 of this Activity Report.

## Reclassification of roads

During the year the Country Roads Board completed a review of road classifications throughout the State with a view to correcting the most serious anomalies in road classifications and achieving more desirable continuity in the declared road network. As part of the review the Country Roads Board had regard to traffic volumes, network considerations, road functions, and the recommended network of urban arterial roads which resulted from the Hierarchy of Roads Study Report conducted by the Melbourne and Metropolitan Board of Works in 1981. In December 1982 the Minister of Transport, Mr Steve Crabb MP announced the details of the roads recommended for reclassification as either State highways, main roads or tourists' roads. Work carried out on the new State highways and tourists' roads will in future be financed in full by the Road Construction Authority, while work on main roads will involve a municipal council contribution.

Following advice to municipal councils and after receiving comments from councils, the Country Roads Board reclassified 721 km of roads throughout the State:

	State highways km	Main roads km	Tourists' roads km
Urban	58	134	—
Rural	132	335	62
Total	190	469	62

The reclassification of certain roads was deferred as some municipal councils affected raised objections.

The main criterion for determining which roads should be reclassified was traffic volume and, in particular, the volume of through traffic.

In the urban area the Country Roads Board considered it appropriate to accept full financial responsibility for the construction and maintenance of roads with traffic volumes in the order of 40,000 vehicles per day. These were recommended for reclassification as State highways. Many other roads designated as primary arterial roads in the Hierarchy of Roads Study which had not previously been classified as State highways or Main Roads were recommended for reclassification as main roads.

In the rural area a traffic volume of at least 1,000 vehicles per day was generally the basis of selecting main roads for reclassification as State highways, and unclassified roads with traffic volumes of at least 600 to 700 vehicles per day was generally the basis for reclassification as main roads. Declaration of the 721 km of roads came into effect on 30th June 1983.

## Retirement of Mr W S Brake

Mr W S Brake, BCE, CE, Cert TP & C, MIE Aust retired as Deputy Chairman of the Board on 30th June 1983 after a distinguished 34 years of service.

Mr Brake joined the Country Roads Board in 1949 after completing his engineering degree at the University of Melbourne. He worked in the Benalla and Bairnsdale Divisions before being appointed Assistant Divisional Engineer, Dandenong Division in 1958. He was promoted to the Road Design Sub-branch in 1966 and, after a period as deputy, he was head of this Sub-branch until his appointment to the position of Deputy Chief Engineer in 1970. He succeeded Mr T H Russell as Chief Engineer in 1971. Mr Brake attended the advanced course of the Australian Administrative Staff College in 1971, and undertook an overseas mission in 1973. He was appointed as Member of the Board on 11th January 1975 and Deputy Chairman on 9th December 1978. Under the Grain Handling Improvement Authorities Act, 20th December 1979, Mr Brake became a Member of the Portland Grain Handling Improvement Authority. On 9th July 1980, he was appointed as part-time Member of the Transport Regulation Board.





Duplication of the Calder Highway, from Ravenswood to Big Hill, south of Bendigo

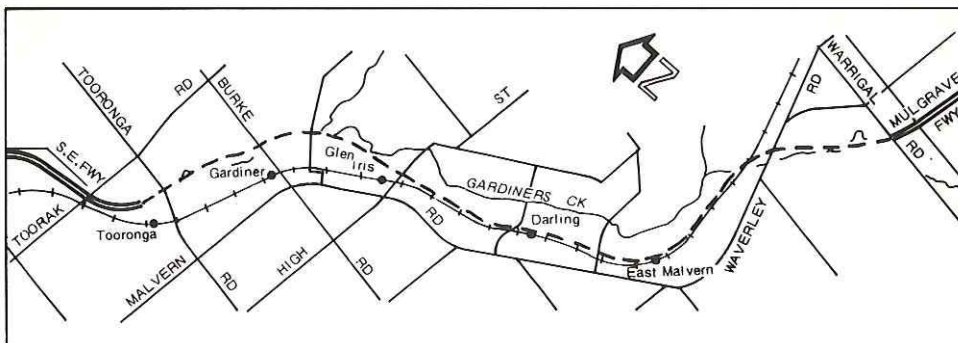
### South Eastern-Mulgrave Arterial Road Link

On Wednesday 25th May 1983 the Minister of Transport, Mr Steve Crabb MP announced that the South Eastern Freeway and the Mulgrave Freeway would be linked by a four lane arterial road.

The 7 km link will generally be built parallel to the Glen Waverley railway line for most of its length on an alignment known as C3. The decision on the alignment to be adopted followed many years of planning for a road link between the two freeways.

On a normal weekday 48,000 vehicles enter or leave the Mulgrave Freeway at Warrigal Road and 59,000 vehicles enter or leave the South Eastern Freeway at Toorak Road. The new connection will remove much of the traffic now using the streets of Malvern, Camberwell and Hawthorn between the two freeways. Once the link is constructed, traffic management measures can be implemented to enable existing streets in the area to revert to their proper roles in the street system.

Design work for the arterial road link commenced late in the 1982/83 financial year with a view to field work commencing late in 1983. The link will be constructed and opened in stages, and will take about four years to complete.





## Opening of four major projects

During the year, four major projects were opened to traffic.

### La Trobe Terrace, Geelong

On Friday 3rd December 1982, the Minister of Transport, the Honourable Steve Crabb MP opened a new road-over-rail overpass on La Trobe Terrace, Geelong, to mark the completion of work on a 2.8 km duplicated arterial road bypass of central Geelong.

The \$15 million project included a road over rail overpass from the Princes Highway at York Street to La Trobe Terrace and the duplication of La Trobe Terrace to Fyans Street.

This route is now the Princes Highway.

### Hume Freeway, Bypass of Seymour

The major part of the Hume Freeway bypass of Seymour was opened on Tuesday 14th December 1982 by the Minister of Transport, the Honourable Steve Crabb MP. The nine kilometre bypass from south of Seymour to the Goulburn Valley Highway interchange cost \$26 million and involved the construction of 17 bridges.

Work continued on a one kilometre section of the Melbourne bound carriageway south of Seymour to complete the project, while traffic used the Wodonga bound carriageway as a two way road over that length.

### Western Freeway, Bypass of Wallace and Bungaree

The Premier, the Honourable John Cain MP, officially opened the \$23.6 million bypass of Wallace and Bungaree on the Western Highway on Wednesday 9th March 1983.

The 11.9 km bypass eliminated two railway level crossings, removed through traffic from the townships of Wallace and Bungaree and provided motorists with a continuous four lane road from the outer suburbs of Melbourne to Ballarat, although the section through Melton is undivided. Local traffic is carried over the bypass by bridges located at Wallace Street, the Bungaree-Creswick Road, and Ormond Road.

### Princes Freeway, Old Gippsdown Interchange

On Friday 18th March 1983, the Minister of Transport, the Honourable Steve Crabb MP opened the \$1.6 million Old Gippsdown Interchange at Moe. The interchange, on the Princes Freeway bypass of Moe, was constructed to enable local traffic to cross the bypass in safety.

The interchange was named after the Old Gippsdown Museum which is nearby.

## Australian Bicentennial Road Development Programme

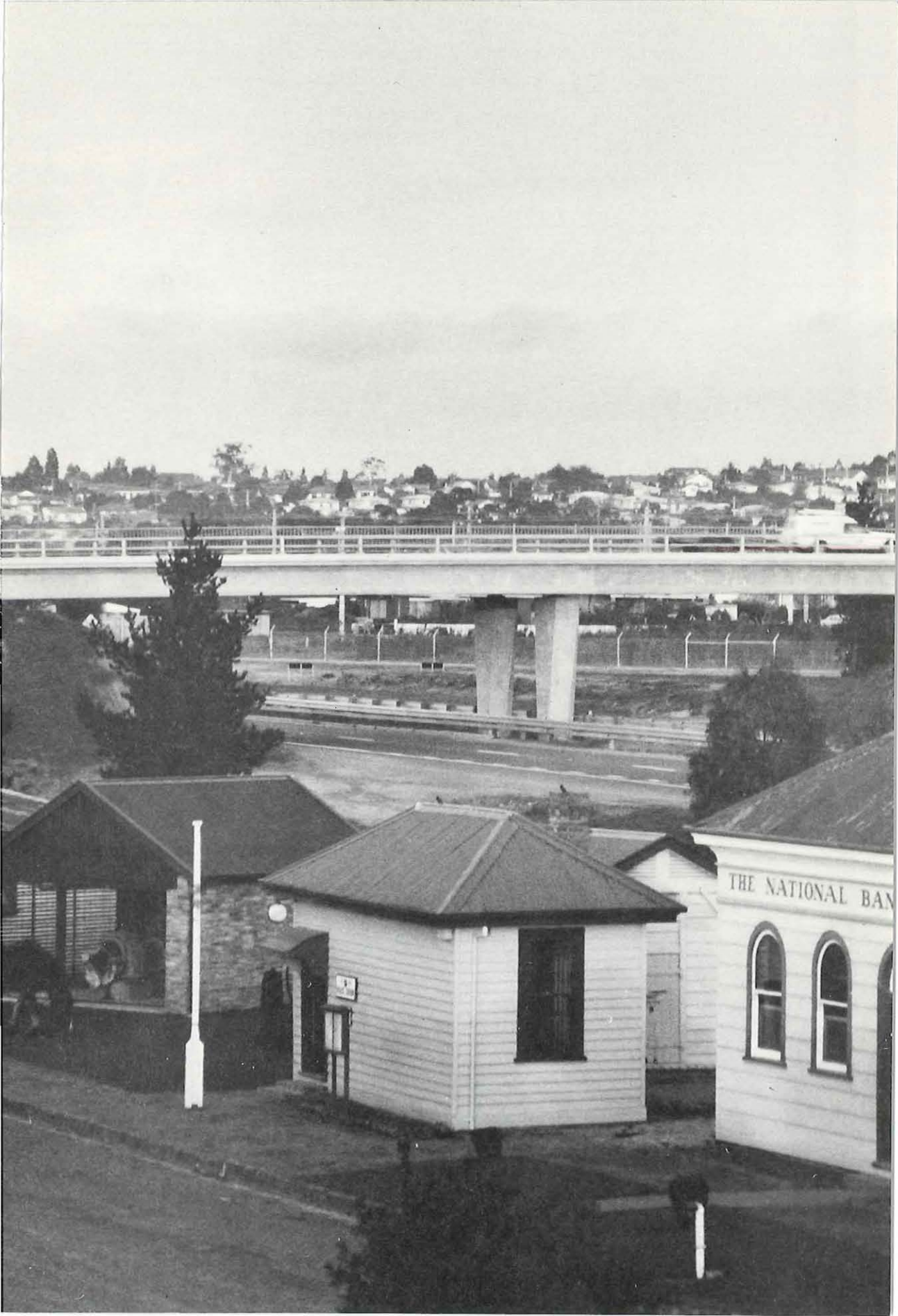
In August 1982, the then Commonwealth Minister for Transport and Construction, the Hon R J D Hunt, MHR, announced the establishment of a \$2.5 billion Australian Bicentennial Road Development Programme (ABRD).

The primary objective of the programme is to fund road construction projects which will significantly improve the nation's road network, in particular the declared "National Roads" system. Funds will also be provided for work on urban and rural arterial roads and local roads. The estimated ABRD funds expected to be made available to States by the Commonwealth under the programme for the first two years were \$180 million in 1982/83 and \$420 million in 1983/84.

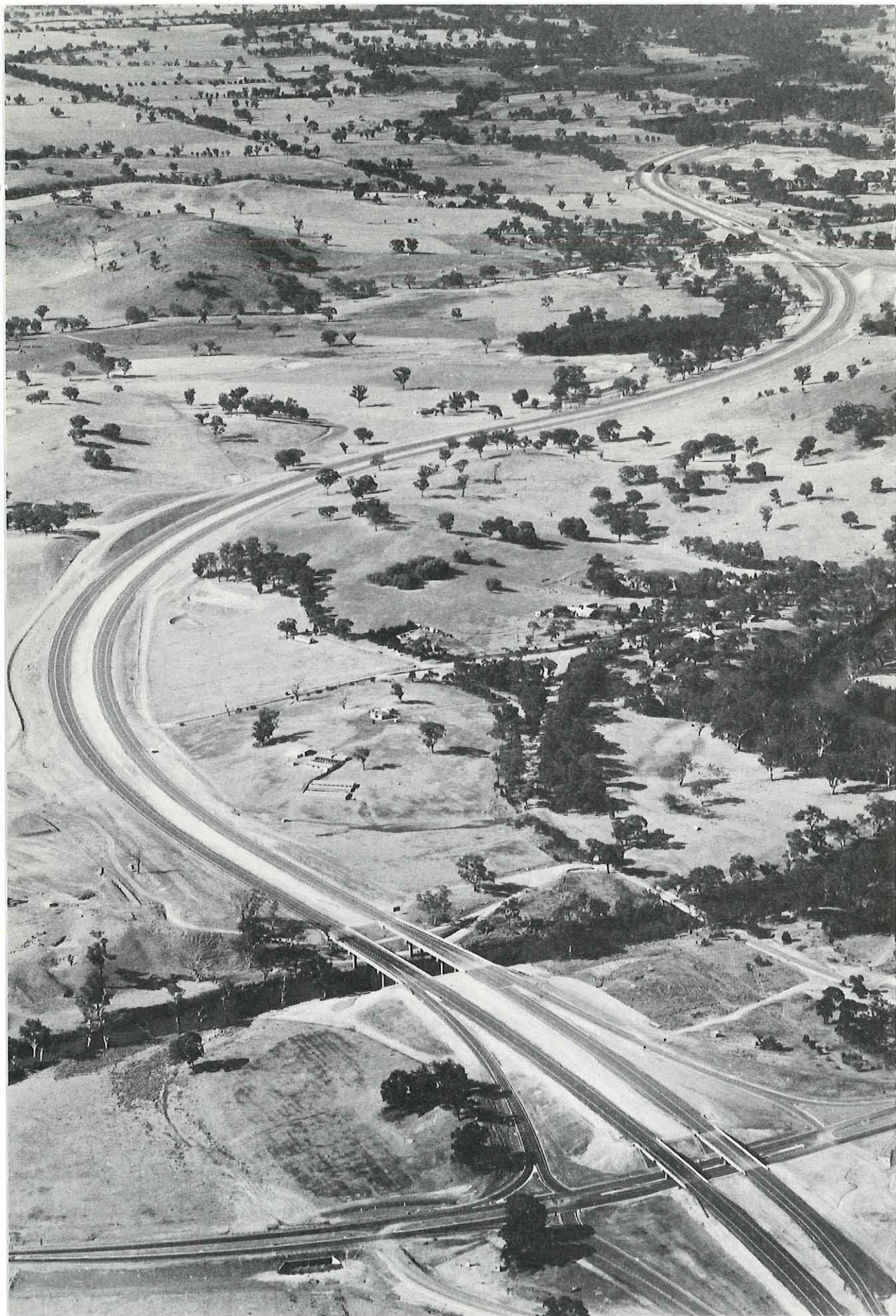
The following table sets out the ABRD funds estimated to be available to Victoria for 1982/83 and 1983/84:

Road type	1982/83 \$	1983/84 \$
National roads	12,000,000	29,400,000
Urban arterial roads <sup>1</sup>	12,900,000	30,000,000
Rural arterial roads	6,400,000	16,000,000
Local roads	5,400,000	10,100,000
Totals	\$36,700,000 <sup>2</sup>	\$85,500,000

The Old Gippsdown Interchange, on the Princes Freeway bypass of Moe, with the Old Gippsdown Museum in the foreground ►









1. Twenty five percent of the amounts made available for Urban Arterial Roads may be expended on Urban Public Transport Capital Works where the Commonwealth Minister is satisfied that such works would result in reduction of traffic on or wear and tear affecting urban arterial roads.
2. The limited time available for approval to programmes and commencement of works prevented the full expenditure of funds available in 1982/83, however these funds will be available to the RCA for expenditure in 1983/84.

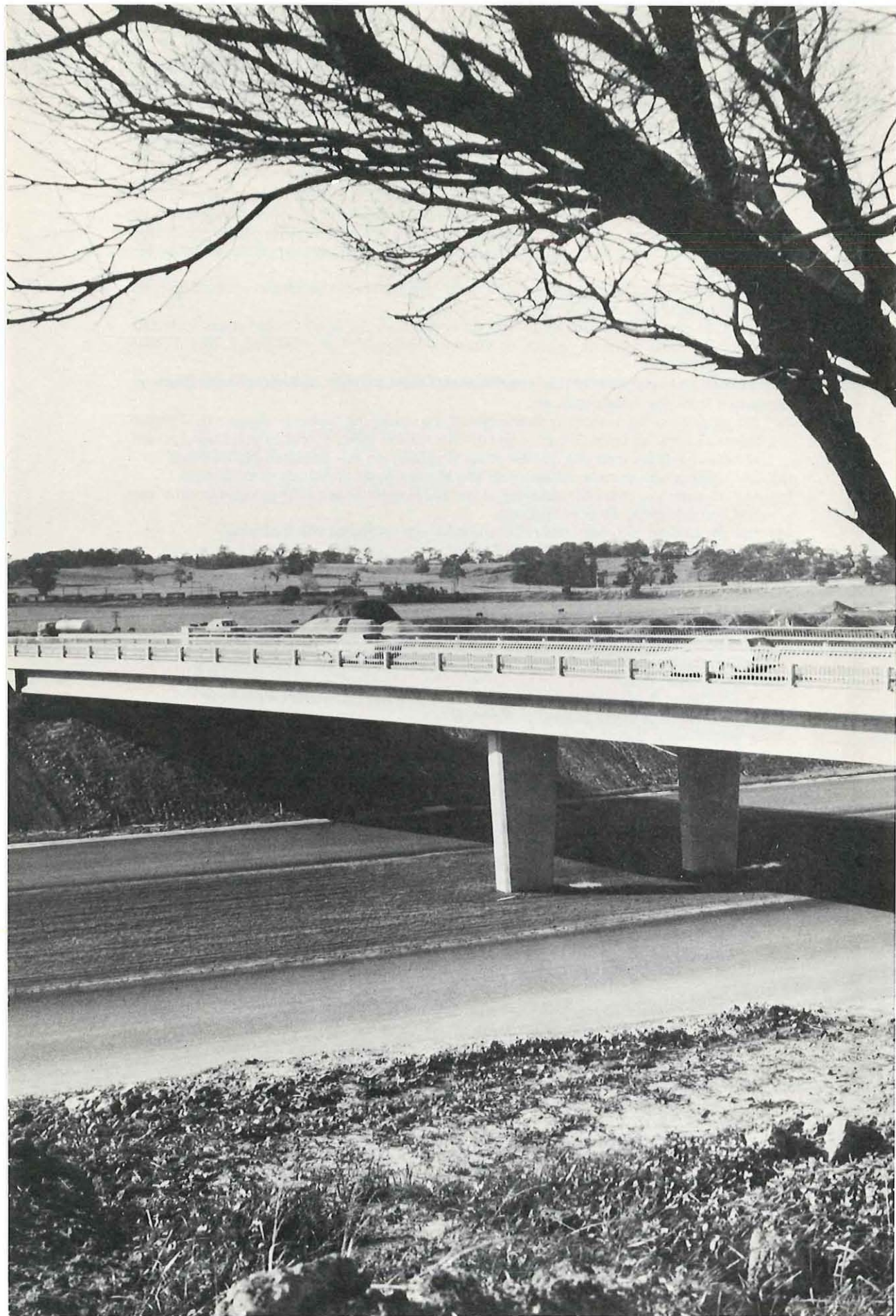
To obtain ABRD funding, each State must maintain in real terms expenditure from other sources on roads at the level prevailing prior to the introduction of the Fund. Works on National and/or Arterial roads must be carried out by contract and the projects forming part of the ABRD programme must be subject to environmental assessment by the State Ministry for Conservation.

In Victoria, fifty-two projects in the "National" and "Arterial" road classifications were approved by the Commonwealth in 1982/83.

Work will be carried out by, or under the supervision of, the Road Construction Authority on duplication and/or bypass projects on Victoria's National Roads—the Hume, Western and Princes Highways.

**Major urban and rural arterial road improvement projects will be undertaken with financial assistance from the Fund, such as:**

- (a) the progressive replacement of a number of the remaining timber bridges on the Princes Highway between Lakes Entrance and the New South Wales border, and the replacement of timber bridges over the Latrobe River floodway on the Traralgon-Maffra Road.
- (b) the construction of new bridges over the Murray River at Echuca and Mildura.
- (c) the construction of a new crossing of the Barwon River at Geelong together with the realignment of the Princes Highway.
- (d) the duplication of urban and rural arterial roads including the following:
  - Calder Highway, Ravenswood to Big Hill
  - Sections of the Goulburn Valley Highway in Shepparton and Seymour townships
  - South Gippsland Highway, progressive duplication of the section between Cranbourne and the Bass Highway
  - Henty Highway, section north of Portland
  - Western Highway, Victoria Street, Ballarat between 107.5 km 109.2 km
  - Geelong-Portarlington Road, Geelong from west of Moolap Station Road to Kensington Road
  - Whittlesea Road, Mill Park between Taunton Drive and McKimmies Lane
  - Bell Street, St Georges Road to James Street
  - North Road, Hawthorn Road to the Nepean Highway
  - Heidelberg-Eltham Road, Greensborough Road to the Plenty River
  - Kororoit Creek Road, Maddox Road to Racecourse Road
  - Springvale Road, Junction Road to Doncaster-Mitcham Road
  - Nepean Highway, Hansen Street to South Avenue
  - Dandenong-Frankston Road, complete duplication between Elliott Road and Thompson Road
  - Doncaster-Mitcham Road, Pine Way to Springvale Road
  - Ferntree Gully Road, various sections between Cootamundra Drive and Burwood Highway to complete duplication
  - Doncaster-Mordialloc Road/Wells Road, Lower Dandenong Road to Springvale Road
  - Stud Road, various sections between Ferntree Gully Road and Dandenong Creek to complete duplication.
- (e) the construction of major road realignments and deviations, some including new river crossings:
  - Princes Highway East, deviation and new bridge at Genoa
  - Calder Highway, bypass of Gisborne
  - Goulburn Valley Highway, new bridge over King Parrot Creek and road deviation at Homebush
  - Bridgewater-Serpentine Road, new bridge over Ioddon River
  - Ouyen-Piangil Road, widening, reconstruction and realignment between 74.0 km and 90.7 km
  - Great Ocean Road, realignment from Stones Corner to Otway Lighthouse Road
  - Stawell-Warracknabeal Road, realignment from Glenorchy to the Western Highway
  - Leongatha-Mirboo Road, realignment and new bridge at Berry's Creek
  - Hamilton-Port Fairy Road, reconstruction between 14.6 km and 21.0 km
  - Allansford-Peterborough Road, reconstruction from the Great Ocean Road to Peterborough.





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# Roads and Bridges

## Major road projects

During the year the Country Roads Board carried out work on many major projects throughout the State including work on the construction of divided roads which, as a result of the work completed, increased the total length of dual carriageways on freeways, State highways, and main roads to 902 km. In addition, work continued on many projects including eleven major projects each having an estimated cost of at least \$5 million.

The more important major projects in progress or completed during the year included:

### Calder Freeway

#### Bypass of Keilor

Work continued on the Calder Freeway bypass of Keilor between Arundel Road and Oakbank Road. One carriageway was opened as a two-lane two-way road on 9th June 1983. Work continued on the construction of the Keilor-Melton Road interchange, and the upgrading of the existing highway which will ultimately become the Bendigo-bound carriageway.

The estimated cost of the bypass between Arundel Road and Oakbank Road, which is scheduled for completion in early 1984, is \$13.5 million at 1983 prices.

### Hume Freeway

#### Oxenburys Road to Creighton Road

Work commenced on the construction of 10 km of duplicate carriageway between Oxenburys Road and Creighton Road, including a 3 km dual carriageway bypass of Old Longwood.

The earthworks and drainage were completed and pavement construction commenced. The total estimated cost of the project, scheduled for completion in late 1983, is \$10 million at 1983 prices.

#### Bypass of Benalla

Work commenced on the construction of the 25 km bypass of Benalla which will extend from the existing duplication south of Baddaginnie to a point south of Winton. Earthworks, drainage works and the construction of four major culverts were commenced. The total estimated cost of the project, scheduled for completion in 1986, is \$50 million at 1983 prices.

#### Barnawartha to Wodonga

Work continued on the construction of a 12.6 km duplicate carriageway between Quarry Road and Parkers Road, and on the 4.7 km bypass of Wodonga to the Lincoln Causeway.

Highway duplication work commenced at Wodonga West, and major earthworks continued on the bypass of Wodonga. Construction of dual freeway overpass bridges at the north eastern railway continued and work commenced on the bridges at Melrose Drive and House Creek. The whole project is estimated to cost \$36.5 million at 1983 prices and is scheduled for completion in 1986.

### Princes Freeway

#### Bypass of Berwick

Work continued on the construction of a 7.3 km bypass of Berwick between Narre Warren and May Road, Beaconsfield. The work involves the construction of dual carriageways, separated by a wide median, bypassing Berwick and Beaconsfield, and the construction of seven bridges and three large culverts. The project is estimated to cost \$18.5 million at 1983 prices and is scheduled for completion in December 1983.

#### Bypass of Warragul

Work continued on the construction of the 7 km bypass of Warragul between the eastern terminal of the bypass of Drouin, and the existing Princes Highway east of Warragul. The bypass of Warragul includes the construction of bridges at the railway interchange (western terminal), Lardners Track, King Street and the Warragul-Korumburra Road. Construction commenced on the Lardners Track bridge over the bypass of Warragul.

As part of the project, work commenced on the construction of a new duplicate carriageway south of the existing pavement between the eastern terminal of the bypass of Warragul and the Moe River. The total project is estimated to cost \$28 million at 1983 prices and is scheduled for completion in late 1985.



## **Mornington Peninsula Freeway**

### **Dromana to Mt Martha**

Work continued on the construction of a 5 km extension of the Mornington Peninsula Freeway between its current terminal at Dromana, and the Nepean Highway at Mt Martha hill. The project involves the construction of dual freeway bridges over the Nepean Highway, Dromana, which will form part of a full-diamond interchange with the highway. North of the interchange the dual freeway carriageways will converge to a single two-lane, two-way carriageway extending to the Nepean Highway at Mt Martha hill as a first stage of construction. The estimated cost of the first stage, scheduled for completion in early 1984, is \$8 million at 1983 prices.

## **Nepean Highway**

### **Elsternwick to Moorabbin**

Work continued on the widening of the Nepean Highway between Cochrane Street, Elsternwick and South Road, Moorabbin. The project involves the construction of new duplicate carriageways along the west side of the existing highway over a distance of a 6.8 km. The existing carriageway will be converted into a service road. Work has been completed between Cochrane Street and Marriage Road.

The estimated cost of the project is \$60 million at 1983 prices and, upon completion of the project in late 1984, a continuous divided highway facility will be available from St Kilda Junction to Mordialloc.

## **Princes Highway, Malvern**

Work continued on the conversion of the existing highway to an eight lane divided highway between Tooronga Road and Waverley Road. The duplication will ultimately extend to Glenferrie Road. Consideration is still being given to alternative treatments at the existing road under rail grade separation near the Malvern Railway Station.

The estimated cost of the work between Tooronga Road and Waverley Road is \$5.25 million at 1983 prices and is scheduled for completion in late 1984.

## **Western Freeway**

### **Bypass of Melton**

Work commenced on the construction of the 8.8 km bypass of Melton to the south of the town, from east of Ferris Road to west of Harkness Road. The project includes interchanges at Ferris Road and Coburns Road, an overpass at Station Road, dual bridges over Toolern Creek and culverts at Arnolds Creek East.

The project is estimated to cost \$30 million at 1983 prices and is scheduled for completion in 1986.

## **West Gate Freeway**

### **South Melbourne Section**

Work continued on the 3.6 km West Gate Freeway between Graham Street, Port Melbourne and Grant Street, South Melbourne, including the construction of foundation piles for the 1.85 km elevated section of the freeway. Completion of the northern carriageway is expected in 1986. The estimated cost of the entire project is \$113 million (1981 prices) but the final cost will depend on whether or not the Government decides to proceed with the southern carriageway and the timing of that decision.

The following four major projects were opened to traffic during the year:

### **La Trobe Terrace, Geelong:**

- The reconstruction of La Trobe Terrace, Geelong including the construction of dual road over rail bridges.

### **Hume Freeway:**

- A 9 km bypass of Seymour from the south of Seymour to the Hume Freeway/Goulburn Valley Highway interchange.

### **Western Freeway:**

- An 11.9 km bypass of Wallace and Bungaree.

### **Princes Freeway:**

- An interchange on the bypass of Moe.

## Bituminous Surfacing

Bituminous surfacing forms an important part of road construction and maintenance work. In 1982/83, the Country Roads Board was involved in the surfacing of 4961 km of roads, the cost of which was approximately \$52 million.

Approximately 96.8% of the total length of bituminous surfacing done was of the sprayed seal type. This process involves the spraying of a thin hot bituminous layer on the road surface, followed by spreading a layer of aggregate which is rolled into the bitumen by pneumatic tired rollers and controlled traffic. In spite of increases in the cost of bituminous materials this remains an economical surfacing process which provides a safe, skid resistant surface. The Board's 16 mobile bituminous surfacing units, together with plant owned by municipal councils and contractors, completed 4,414 km of sprayed work at a cost of \$34.8 million on roads to which the Country Roads Board contributed funds. A further 372 km of sprayed work was performed for other authorities.

The balance of bituminous surfacing work was of asphalt surfacing, which is plant-mixed and spread in a layer with a mechanical paver.

Contractors operating from fixed asphalt plants completed 175 km of plant mix work at a cost of approximately \$17 million using 326,000 tonnes of asphalt.

**The lengths of the various types of work completed during the year were:**

- 218 km of sealing widened pavements
- 22 km of initial sealing on dual carriageways
- 619 km of restoration of seal coats on reconstructed sections
- 482 km of final sealing on initial treatments
- 2854 km of maintenance retreatments
- 3 km of sealing on ancillaries to other major works
- 391 km of extensions to the bituminous sealed road system including 57 km of roads declared or proclaimed under the Country Roads Act
- 372 km sealed on behalf of Municipalities and other State authorities.

**The following quantities of material were used by the Country Roads Board and by contractors during the year on bituminous surfacing works:**

Material	Quantity
Bitumen for sprayed work	37,500 tonnes
Bitumen for asphalt	16,625 tonnes
Aggregate for sprayed work	307,855 cubic metres
Aggregate for asphalt	221,673 cubic metres
Other bituminous materials for sprayed work and maintenance	10,000 tonnes

## Land purchase

During the year the Country Roads Board paid compensation and associated costs totalling \$17,537,000 for land required for the construction of new roads and the widening or deviation of existing roads.

The following table shows the expenditure incurred during the year on land purchase in relation to the Country Roads Board's road classifications and the Commonwealth road categories.

CRB road classification	Commonwealth road category			
	National roads	Arterial roads	Local roads	Total
	\$'000s	\$'000s	\$'000s	\$'000s
Freeways	2,472	8,177		10,649
State highways	186	2,168		2,354
Tourists' roads		60	2	62
Forest roads		3	25	28
Main roads		3,160	172	3,332
Unclassified roads		467	645	1,112
Total	2,658	14,035	844	17,537

The table below shows the number of land purchase transactions completed and the amount of compensation and associated costs paid by the Country Roads Board for the period 1978/79 to 1982/83.

	1978/79	1979/80	1980/81	1981/82	1982/83
Number of land purchase cases settled	629	558	527	489	440
Compensation and associated costs paid by the CRB	\$22.43m	\$17.31m	\$17.80m	\$20.88m	\$17.54m
Land purchase expenditure on unclassified roads under council supervision	\$ 1.70m	\$ 0.84m	\$ 0.73m	\$ 0.69m	\$ 1.06m

Of the \$17.54 million expended on compensation and associated costs during the year, \$6.52 million was spent in purchasing properties at the request of owners who demonstrated that they were incurring hardship due to the Country Roads Board's future road proposals.

The Country Roads Board received \$3,506,346 from 836 rented residential or commercial properties and 338 separate areas of vacant land.

During the year 115 separate areas of surplus land were sold for \$4,090,012 and 118 residential properties surplus to requirements were sold for \$5,524,343. Of the residential properties sold, 96 were transferred to the Ministry of Housing. Twenty houses were sold for removal for \$151,650.

## Contracts

Details of the types and numbers of contracts which were carried out under the Country Roads Board's direct supervision and for which formal tenders were called, showing respective values, together with comparison with those in financial year 1981/82, are shown in the following table:

Type of Contract	1981/82		1982/83	
	No. of Contracts	Value \$	No. of Contracts	Value \$
<b>Road construction</b>				
Over \$1 million	6	9,089,702	7	11,372,136
\$100,000 to \$1 million	5	1,077,349	29	9,768,189
Under \$100,000 (not inc. quotations)	1	20,454	9	768,711
<b>Bridge construction</b>				
Over \$1 million	1	1,761,871	-	-
\$100,000 to \$1 million	6	1,801,027	10	2,689,406
Under \$100,000	6	295,826	17	924,186
Supply of roadmaking materials	130	12,134,732	165	20,379,377
Bituminous treatment and supply of materials	49	17,125,962	72	12,427,767
Bridge components and fabricated steel	20	3,173,539	32	3,674,184
Building construction	2	91,386	7	450,648
Construction equipment	40	4,367,502	24	2,171,971
Divisional facilities	2	861,256	-	-
Miscellaneous stores	11	12,878,176	4	112,979
Miscellaneous services	50	2,601,944	40	2,008,143
<b>Total</b>	<b>329</b>	<b>67,280,726</b>	<b>416</b>	<b>65,979,508</b>

As part of the conversion of the Princes Highway East, Caulfield/Malvern, to an eight lane divided highway, established palm trees were relocated to Marine Parade, St Kilda





## Landscaping

The landscaping of road reserves is an integral part of roadmaking and maintenance practice. The careful planting of trees and shrubs enhances the aesthetic appearance of the road and provides a pleasant and safer travelling environment.

Number and cost of trees and shrubs planted by the Country Roads Board during the 1982/1983 financial year:

	No. of trees and shrubs	Purchase cost \$
<b>Divisions</b>		
Bairnsdale	920	410
Ballarat	2070	1380
Benalla	-	-
Bendigo	7320	4170
Dandenong	45560	25870
Geelong	5800	7760
Horsham	3200	1600
Metropolitan	28000	21000
Traralgon	2000	1000
Warrnambool	1000	1000
<b>Projects</b>		
Hume Freeway (Seymour)	5000	2500
<b>Total</b>	<b>100,870</b>	<b>66,690</b>

## Construction of new bridges

Description	1981/82		1982/83	
	No.	Est. cost \$'000s	No.	Est. cost \$'000s
New bridges commenced under the supervision of the CRB's staff	38	18,476	44	19,225
New bridges commenced under municipal supervision with financial assistance from the CRB	31	3,350	49	5,108
Miscellaneous — Sign structures, etc.		126		356
<b>Total bridges commenced</b>	<b>69</b>	<b>21,952</b>	<b>93</b>	<b>24,689</b>

The above table gives a comparison between the number and estimated cost of bridge projects commenced in 1982/83 and those for the preceding financial year.

## Bridges and overpasses in the metropolitan area

Large structures completed in the metropolitan area during the year under the direct supervision of the Country Roads Board's staff included:

### Calder Freeway, Keilor

#### Overnewton Road

A two span box girder bridge over the Calder Freeway at Overnewton Road, 82.8 m long and 9.2 m between kerbs with a 1.8 m footway.

### Arterial Road Extension of the Eastern Freeway

#### Koonung Creek Conduit

The undergrounding of Koonung Creek over a distance of 2.44 km between Doncaster Road, Doncaster, and Thompsons Road, Bulleen, including the inlet and outlet control structures. Precast concrete arch units with a 6.6 m wide base and 4.1 m high at the crown were used in the construction of the conduit.



## **Major bridges completed in rural areas**

Major bridges completed in rural areas during the year under the direct supervision of the Country Roads Board's staff included:

### **Bonang Highway**

#### **Bonang River, Bonang**

A three span reinforced concrete beam and slab bridge, 43.07 m long and 8.6 m between kerbs.

### **Drummond-Vaughan Forest Road, west of malmesbury**

#### **Loddon River**

A three span high strength reinforced 'U' slab bridge, 32.54 m long and 7.5 m between guard rail barriers.

### **Hume Freeway bypass of Seymour**

#### **Freeway bridges over Sunday Creek**

Dual three span reinforced concrete and steel plate girder bridges, 100.5 m long and 11.6 m between kerbs.

### **Princes Freeway bypass of Berwick**

#### **Freeway bridges over the railway at Narre Warren**

Dual two span reinforced concrete and steel plate girder bridges, 50.75 m long and 11.6 m between kerbs.

#### **Soldiers Road Bridge over Freeway**

A two span post tensioned box girder bridge, 76.56 m long and 9.2 m between kerbs.

#### **Berwick-Cranbourne Road bridge over the Freeway**

A two span prestressed concrete beam and slab bridge, 74.97 m long and 8.6 m between kerbs.

#### **Freeway Bridge over the Princes Highway**

A single span prestressed concrete beam and slab bridge, 23.6 m long and 9.8 m between kerbs.

### **Murray Valley Highway**

#### **Campaspe River, Echuca**

A four span prestressed concrete beam and slab bridge, 73.3 m long and 7.9 m between kerbs.

Larger bridges constructed during the year under municipal supervision, with financial assistance from the Country Roads Board included:

### **Charlton Shire**

#### **Seven Mile Road**

Avoca River—a three span high strength reinforced concrete 'U' slab bridge, 35.73 m long and 7.5 m between kerbs.

### **Dandenong City**

#### **Greens Road**

Dandenong Creek—a three span prestressed concrete beam and slab bridge, 51.45 m long and 9.8 m between kerbs.

### **Dimboola Shire**

#### **Tarranyurk West Road**

Wimmera River—a four span high strength reinforced concrete 'U' slab bridge, 44.1 m long and 7.5 m between kerbs.

### **Kyneton Shire**

#### **Kyneton-Metcalf Road**

Campaspe River, Windmill Bridge—a six span high strength reinforced concrete 'U' slab bridge, 64.61 m long and 8.6 m between kerbs.

### **Mansfield Shire**

#### **Mansfield Road**

Delatite River, Merrijig—a four span high strength reinforced concrete 'U' slab bridge, 43.22 m long and 9.8 m between guard rail barriers.

### **Omeo Shire**

#### **Benambra-Corryong Road**

Turnback Creek—a single span high strength reinforced concrete 'U' slab bridge, 10.48 m long and 7.5 m between kerbs.



### **Oxley Shire**

#### **Docker-Carboor Road**

Docker's Swamp—a five span high strength reinforced concrete 'U' slab bridge, 55.5 m long and 6.2 m between kerbs.

### **Whittlesea Shire**

#### **Arthurs Creek Road**

Plenty River—a three span high strength reinforced concrete 'U' slab bridge, 31.82 m long and 9.8 m between kerbs.

### **Yackandandah Shire**

#### **Dederang Road**

Yackandandah Creek—a three span high strength reinforced concrete 'U' slab bridge, 27.29 m long and 9.2 m between kerbs.

## **Significant works**

**Significant works completed or substantially completed during the financial year 1982/83:**

### **State highways**

State highways are the principal arteries forming interstate connections and links between the larger centres of population in the State. Some State highways in Victoria form part of the National Route system of highways with uniform route numbering throughout Australia. The Country Roads Board accepted the full cost of both construction and maintenance works required to meet the needs of through traffic. As at 30th June 1983, there were 7,141 km of State highways declared under the Country Roads Act.

#### **Bass Highway**

Bass Shire: Construction of a roundabout and the three approach roads at the Phillip Island Tourists' Road intersection.

#### **Burwood Highway**

Nunawading and Knox Cities: Widening 0.6 km to three lanes in each direction between Morack Road and the Mountain Highway including widening and strengthening the bridges over Dandenong Creek.

#### **Calder Highway**

Bulla Shire: Reconstruction of 0.8 km south of Gap Road.

Gisborne Shire: Construction of a 5.4 km additional lane to provide for four traffic lanes south of Macedon.

Metcalf Shire: Reconstruction of 0.5 km and elimination of a crest at Faraday.

#### **Cann Valley Highway**

Orbost Shire: Reconstruction and realignment of 2.1 km north of Flat Rock Creek.

Reconstruction and realignment of 2.2 km north of Chandlers Creek including construction of an Armco arch culvert.

#### **Glensig Highway**

Grenville Shire: Widening and resurfacing 1.5 km at Pitlong.

Wannon Shire: Widening the bridge at Denhills Creek west of Coleraine.

#### **Goulburn Valley Highway**

Shepparton City: Construction of a duplicate carriageway between Broken River and McIntosh Street, Shepparton.

#### **Henty Highway**

Portland Shire: Reconstruction of 4.6 km north of Heywood.

#### **Hume Highway**

Kilmore Shire: Asphalt resurfacing 2.2 km at Beveridge.

#### **Kiewa Valley Highway**

Bright Shire: Reconstruction and widening of 0.8 km through Tawonga.

#### **Maroondah Highway**

Alexandra Shire: Reconstruction of the Goulburn Valley Highway intersection at Koriella.

Lillydale Shire: Duplication of 1.7 km easterly from Lillydale between Anderson Street and the Warburton Highway. Widening of 1.4 km to three lanes east of Brushy Creek, Croydon.

Reconstruction of the intersection with the Warburton Highway including the provision of traffic signals.

### **McIvor Highway**

Bendigo City: Reconstruction of the Sternberg Street/Kennedy Street intersection, including the installation of traffic signals.

### **Midland Highway**

Benalla Shire: Reconstruction and widening of 0.9 km north of Swanpool.

Buninyong Shire: Reconstruction and realignment of 2.7 km south of Clarendon.

Huntly Shire: Reconstruction and widening of 1.9 km between Bagshot and Goornong.

Newstead Shire and Daylesford & Glenlyon Shire: Reconstruction including major realignment of 4.0 km south of Guildford.

### **Murray Valley Highway**

Echuca City: Reconstruction of the Northern Highway intersection at Echuca. Construction of 1.1 km of duplicate carriageway in Echuca.

Tallangatta Shire: Reconstruction, realignment, widening and sealing of the 12.0 km narrow unsealed section over Granya Gap.

### **Nepean Highway**

Flinders Shire: Reconstruction and widening of 1.8 km from Latrobe Parade, Dromana towards McCrae.

### **Northern Highway**

Huntly Shire: Reconstruction and widening of 2.2 km between Elmore and Rochester.

Pyalong Shire: Widening 1.3 km and construction of a climbing lane south of Pyalong.

### **Omeo Highway**

Omeo Shire: Widening and resurfacing 2.6 km south of Glen Valley.

### **Ouyen Highway**

Walpeup Shire: Realignment of 1.4 km at the railway level crossing at Murrayville, including the installation of flashing lights.

### **Princes Highway East**

Berwick City: Widening to three lanes of 1.2 km of the Warragul-bound carriageway at Doveton.

Orbost Shire: Reconstruction of 1.6 km and construction of a three-span prestressed and reinforced concrete bridge over the McKenzie River, west of Cann River. Reconstruction of 1.1 km and replacement of two timber bridges with a three span reinforced concrete bridge and a seven cell culvert at Cabbage Tree Creek.

### **Princes Highway West**

Belfast Shire: Reconstruction and minor realignment of 3.4 km at Killarney. Reconstruction of 5.2 km west of Yambuk.

Heytesbury Shire: Reconstruction of 1.9 km east of Stonyford.

Portland Shire: Reconstruction of 7 km at Drumborg.

Warrnambool Shire: Reconstruction of 1.8 km east of Allansford.

### **South Gippsland Highway**

Cranbourne Shire: Widening 0.9 km to four lanes south of Cranbourne.

Korumburra Shire: Widening and resurfacing 4.2 km west of Nyora. Reconstruction of the Bena-Kongwak Road intersection west of Bena.

### **Sunraysia Highway**

Birchip Shire: Reconstruction of 7.6 km south of Kinnabulla.

### **Warburton Highway**

Lillydale Shire: Construction of two 0.8 km climbing lanes east of Lilydale.

### **Western Highway**

Ballarat Shire: Reconstruction and widening of 6.5 km from east of Burrumbeet to Mt Callender.

Kaniva Shire: Widening and resurfacing 2.2 km east of Lillimur. Widening and resurfacing 4.0 km west of Kaniva.

### **Wimmera Highway**

Arapiles Shire: Realignment of 2.8 km west of Toosan.

## **Forest Roads**

Forest roads are situated within or adjacent to State forests or in areas which are considered to be timbered, mountainous or undeveloped. The Country Roads Board accepted the full cost of works required to cater for the needs of through traffic, with approximately half the work carried out on these roads undertaken by municipal councils. As at 30th June 1983, there were 1,013 km of forest roads declared under the Country Roads Act.

### **Avon Shire**

Dargo Road: Reconstruction and realignment of 0.7 km at Castleburn, including a new culvert at Bulgaback Creek.

## Freeways

A freeway is a road having dual carriageways with no direct access from adjoining properties and side roads. All crossings of a freeway are by means of overpass or underpass bridges, and traffic enters or leaves the freeway carriageways by means of carefully designed ramps. The Country Roads Board accepted the total cost of all work on freeways. As at 30th June 1983, there were 403 km of freeway declared under the Country Roads Act.

### Frankston Freeway

Frankston City: Construction of an exit ramp to an industrial estate near Armstrongs Road.

### Mornington Peninsula Freeway

Springvale City/Frankston City: Installation of an emergency telephone system between Springvale Road and the Frankston-Cranbourne Road.

### West Gate Freeway

Altona City/Footscray City/Sunshine City: Asphalt resurfacing of 2.6 km of both carriageways between Williamstown Road and Grieve Parade.

## Tourists' Roads

Tourists' roads provide access to places of special interest to tourists, both in summer and winter. The Country Roads Board accepted the full cost of works required to cater for the needs of through traffic. In general the works were carried out under the direct supervision of the Country Roads Boards' staff. As at 30th June 1983, there were 798 km of tourists' roads declared under the Country Roads Act.

### Alpine Road

Ormeo Shire: Resurfacing 3.5 km at Jim and Jack Creek, east of Cobungra.

### Bogong High Plains Road

Bright Shire: Reconstruction and widening of 4.1 km between Clover Dam and Bogong.

### Great Ocean Road

Heytesbury Shire: Reconstruction of 3.4 km east of Port Campbell.

### Mallacoota Road

Orbost Shire: Reconstruction and realignment of 3.3 km at Mangans Lake.

## West Gate Bridge

### Operations

#### Bridge Traffic

A total of 11,296,556 vehicles crossed the West Gate Bridge during the year ended 30th June 1983, bringing total traffic to 45,015,009 since the Bridge was opened on 15th November 1978. This overall level of traffic, compared with the year to 30th June 1982, showed a gain of 0.58%. The average daily traffic volume for the year was 30,949 vehicles per day (1982 - 30,769 VPD). The weekday traffic volume (Monday to Friday) averaged 33,479 vehicles per day (1982 - 33,029 VPD), a gain of 1.36%.

Weekend traffic averaged 25,458 vehicles per day (1982 - 25,854 VPD) a decrease of 1.56%. The trend of falling weekend day traffic volumes relative to week day traffic has been apparent for the past two years, reflecting a changing pattern in "discretionary" and recreational travel, due to increasing fuel and vehicle running costs.

In 1982/83, commercial vehicles accounted for 5.71% of all traffic, compared with 6.16% in 1981/82. This trend appears to reflect the downturn in economic activity, especially in the western regions of Melbourne.

During the year, the highest daily traffic volume since the opening of the Bridge was recorded on Friday 28th January 1983, the eve of the Australia Day holiday long weekend.

The traffic volume on that day was 43,436 vehicles, with the highest peak hour traffic volume of 4289 vehicles, between 4.00 pm and 5.00 pm, 69% of which was westbound.

The accompanying graphs set out the distribution of traffic volumes for total traffic and weekday traffic, and the average daily traffic and average weekday traffic since the Bridge was opened.

#### Vehicle Accidents

During the year, 33 vehicle accidents were recorded, bringing the total number since the opening of the Bridge to 106, representing one accident for each 424,670 vehicle crossings, or one accident for each 2,123,350 vehicle kilometres of travel within the franchise area. None of the accidents recorded resulted in severe injuries to drivers or third parties.

#### Vehicle Breakdowns

During the year, a total of 2,335 vehicle breakdowns were attended to, bringing the total number since the opening of the Bridge to 10,309.

Mechanical failures accounted for 53%, "out of fuel", 34%, and punctures, 13%.



## **Toll Pricing Policy**

On 30th August 1982, increased toll pricing schedules were introduced for all classes of traffic, the first since the Bridge was opened.

Class One (sedans, utilities, vans, motor cycles) toll charges were increased by 33.33%, and 25% for all other traffic classes (commercial vehicles).

At the same time, a new toll charge for "pool cars" was introduced, offering a 50% reduction for vehicles crossing the Bridge, Monday to Friday, subject to such vehicles carrying two passengers and also subject to the pre-purchase of "Pool Car" pre-paid toll vouchers in packs of ten (10) at a price of \$4.00 per pack.

### **Toll Revenue**

Total toll revenue for the year amounted to \$8,366,299, an increase of \$1,615,539, or 23.93% when compared to 1981/82.

This increase was achieved due to the higher toll charges which applied from 30th August 1982, notwithstanding that overall traffic for the year increased by only 0.58%.

Prior to the price change, the elasticity of traffic volumes was estimated at a maximum of -0.5, that is, for every one percent increase in the tolls, it was estimated that traffic would initially decrease by up to one half of one percent.

This estimate proved to be conservative, as the overall toll increase resulted in traffic volumes dropping by only 3.5% in the two months following the price changes, with a gradual build up in subsequent months to current levels which are approximately the same as the pre-price rise period. Actual elasticity was -0.11.

The most significant effect of the new toll structure has been an increase of 3.6% in the percentage of motorists passing through manned toll lanes to pay by cash or by pre-paid toll vouchers.

A corresponding decrease in receipts through automatic lanes has been experienced, especially on weekdays.

The percentage of motorists tendering pre-paid toll vouchers has remained static at 32%.

## **Technical and Engineering Services**

### **Structures**

All elevated structures have been continuously inspected, in particular the main steel bridge and concrete approach viaducts, to ensure that performance data is available for all operating conditions and that maintenance programmes are fully adequate for the long term performance of the facility.

A detailed inspection of the external paint applied to the steel spans during 1980-1982 was undertaken at the end of the painting contract maintenance period.

In addition to the main bridge structures, the range of inspection activities covered the overpasses at Williamstown Road, Yarraville, and at Salmon Street and Graham Street, Port Melbourne, and all Bridge roads, including electrical, fire fighting services and electronic equipment.

### **Electronic Data Processing**

The "on-line" processing of all toll transactions, and the compilation of statistical information relating to traffic has been very satisfactory.

The electronic processing equipment comprising an IBM 1800 on-line computer, plus two only stand-alone "Procom" computers have not experienced any significant "down time" as a result of equipment failure. The principal down time resulted from a need to undertake either hardware or software preventative maintenance.

The software maintenance agreement, which was previously contracted to RMIT and terminated in December 1981, is now contracted to an individual consultant.

The hardware maintenance agreement with IBM was satisfactory, however IBM has indicated that it will not enter into a Maintenance Contract for the IBM 1800 computer after 1985. Its maintenance support will be available on a "call out" basis as long as spares and staff, with knowledge of the equipment and system software, are available in Australia.

During the coming year, investigations into alternative systems will be undertaken and feasibility studies completed in about eighteen months. This will provide adequate time for the design, installation and testing of new "State of the art" equipment for future toll collection and traffic management systems.

### **Variable Message Signs**

During the year, investigations were underway regarding the most economic method of providing driver information at, and in advance of toll lanes.

Significant advances have been achieved in recent years in the computerisation of these types of message boards, and it is anticipated that firm proposals will be formulated during the 1983/84 year.

### Maintenance of Project Area

The Maintenance Section undertook programmed preventative maintenance on all structures, plant and equipment, electrical installations and the extensive landscaped areas within the Bridge area.

Pavement resurfacing of areas at the eastern approach to the Bridge, and the Toll Plazas, was carried out to restore levels where sub-surface subsidence had occurred.

The road pavements of the elevated structures have performed entirely satisfactorily and showed no significant signs of deterioration, despite having carried some 45 million vehicles. The drought during the 1982/83 summer caused considerable additional work in maintaining the landscaped areas but only a relatively small number of established trees and shrubs were lost. These have now been replaced from the stocks propagated in the plant nursery.

### Administration

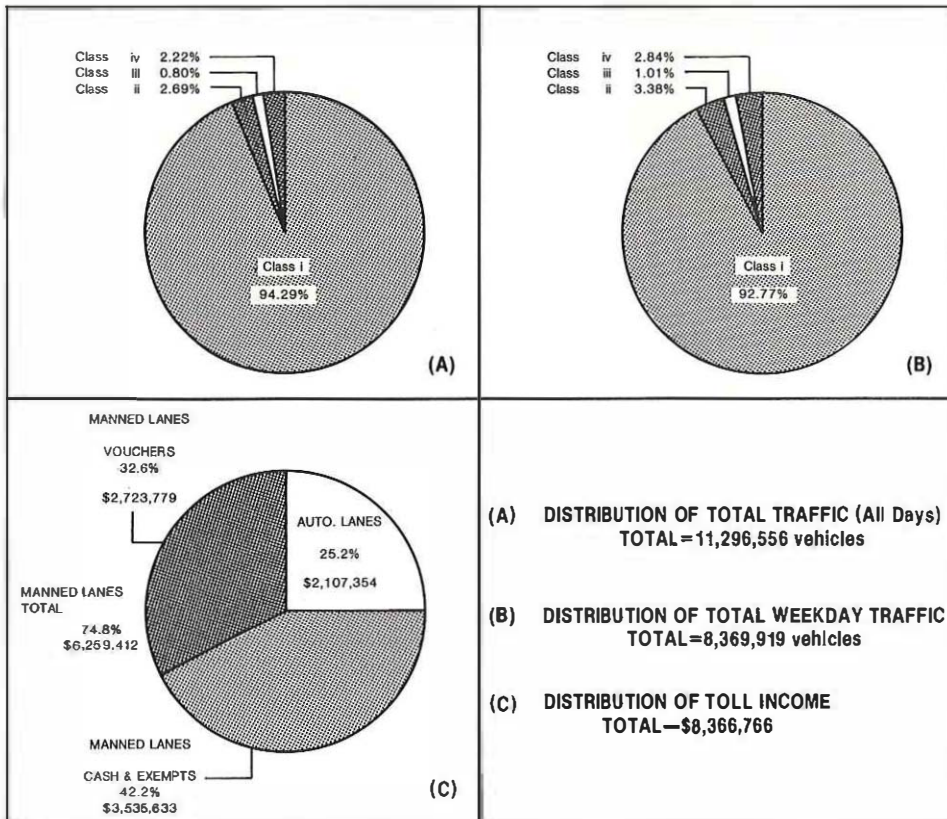
The borrowing functions of the former West Gate Bridge Authority were transferred to Head Office, as were other accounting and administrative functions.

The total personnel strength of West Gate Bridge as at 30th June 1983 was:

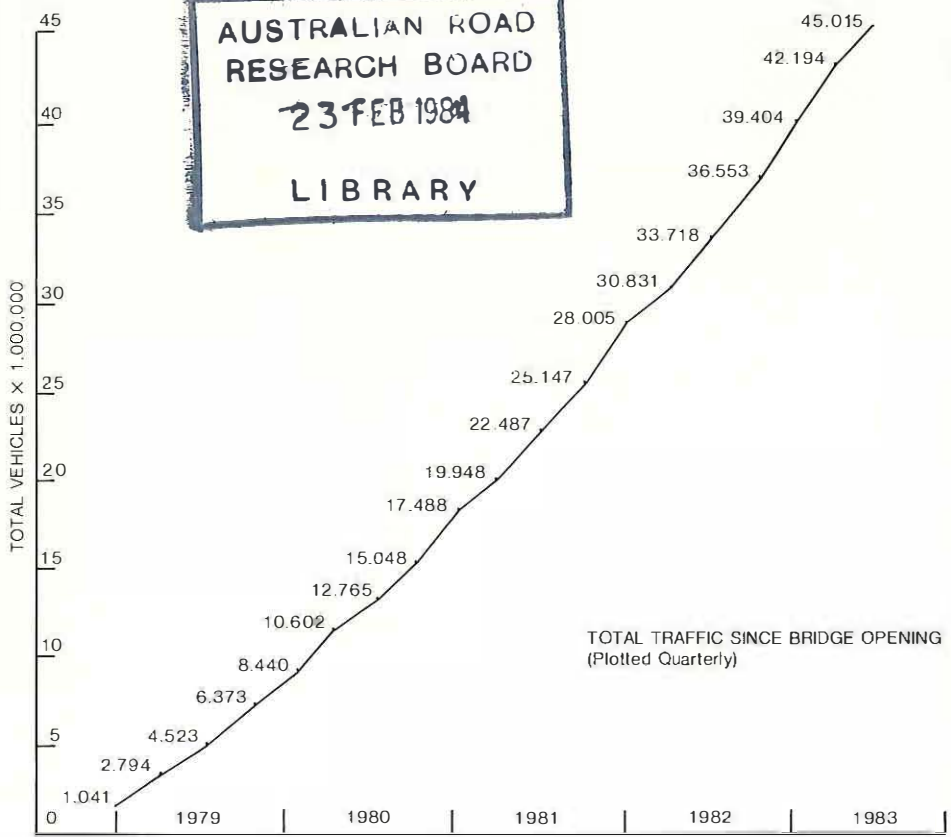
Administration	11
Operations	70
Maintenance	29
Engineering and Technical Services	6
	<u>116</u>

The transfer of functions of the West Gate Bridge operations to the CRB occupied a high proportion of senior officers' time during the year. New industrial agreements for sections of the workforce were processed, revised accounting and reporting procedures established and many other aspects relating to the integration of West Gate Bridge functions within the Country Roads Board were negotiated.

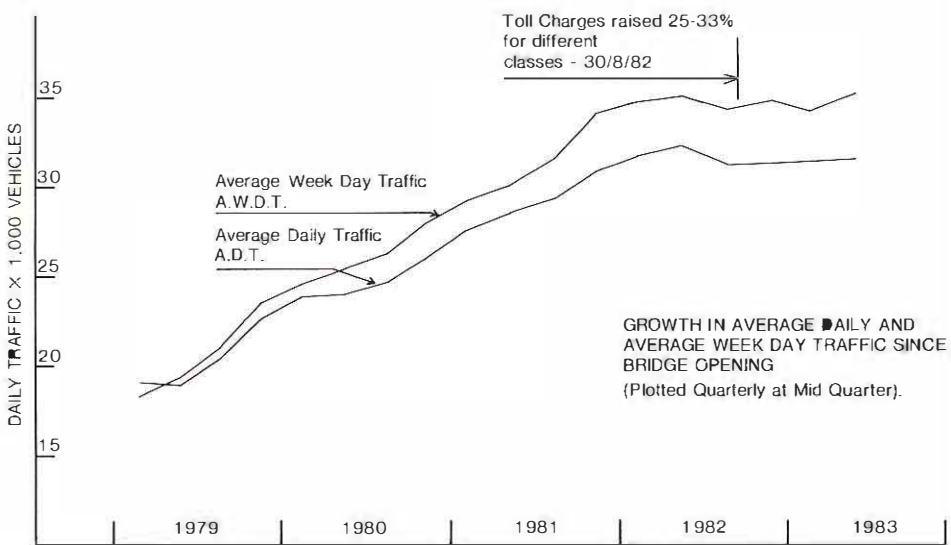
Although a number of outstanding matters have yet to be finalised, the main issues involved in the transfer were resolved during the year.



AUSTRALIAN ROAD  
RESEARCH BOARD  
23 FEB 1984  
LIBRARY



GRAPH A



GRAPH B



# Municipal

## Municipal allocations

In June 1983 the Country Roads Board allocated \$124,912,000 to Victoria's 211 municipal councils, and French Island, for road works on main roads and unclassified roads in financial year 1983/84. This represented \$12,467,000 more than the original allocations made in June 1982 for 1982/83.

The table below shows the allocations to municipal councils for 1982/83 and 1983/84. The table also shows the final allocations for 1981/82 and 1982/83, the percentage increase in final allocations over these two years and the percentage increase in original allocations from 1982/83 to 1983/84.

	1981/82		1982/83		1983/84	
	Final alloc. \$'000s	Original alloc. \$'000s	Final alloc. \$'000s	% Inc. over final alloc. for 1981/82	Orig. alloc. \$'000s	% Inc. over orig. alloc. for 1982/83
Main roads	54,017	58,671	64,055	18.6	67,241	14.6
Unclassified roads	50,729	53,774	59,632	17.6	57,671	7.2
Total	104,746	112,445	123,687	18.1	124,912	11.1

Applications for funds for works on main roads and unclassified roads exceeded the level of allocations that could be provided by many millions of dollars.

## Formula approach to municipal allocations

The Country Road Board/Municipal Association of Victoria formula, introduced on a 3 year trial basis in 1982/83 to establish a minimum total level of funds to be allocated to municipal councils for works on main and unclassified roads, was used for the distribution of funds for 1983/84.

In general terms, the formula provided for:

- (a) an estimate to be made of the total funds available to the Country Roads Board from both Commonwealth and State sources.
- (b) from this total the following amounts to be deducted:
  - the amount of the Commonwealth National Roads Grant;
  - a "Needs Provision" amounting to 2% of the total estimated funds available in order to provide some flexibility to give recognition to changing needs throughout the State for both direct and municipal works;
  - a "Commitment Provision" amounting to 20% of the total estimated funds available in order to cover statutory items, capital, planning and research, management and operating expenditure, forest roads, traffic line marking, Murray River Bridges and Punts, Special Impact Works, STATCON programmes, protection of low clearance railway bridges etc.
- (c) the balance of the estimated total funds to be distributed equally between:
  - normal Country Roads Board's works on State highways, freeways and tourists' roads, and
  - normal municipal works on main and unclassified roads.

The division between Country Roads Board and municipal works of the "Needs Provision" was to be determined following consideration of applications for funds submitted by municipal councils and the Country Roads Board's Divisional Engineers.

**The Country Roads Board reserved the right to review the formula in consultation with the Municipal Association of Victoria if:**

- (a) there were any major changes in respect to State and Commonwealth legislation which would have an effect on the distribution of funds to various categories of roads;
- (b) there were any major changes in road declarations; or
- (c) there were any government directives which would have any effect on the distribution of funds to various categories of roads.

The formula did not apply to any loan funds made available to the Country Roads Board for special purposes.

## **Special Impact Works**

In each financial year since 1979/80 limited funds were made available from Country Roads Board revenue for special roadworks throughout the State where it was clearly demonstrated that the works were urgently required to assist in the implementation of, or to provide relief from the impact of government development policies. Priority was given to applications for funds for the rehabilitation of roads which have failed through increased traffic as a result of these development policies.

**The type of work for which funds were provided generally fell within the following guidelines:**

- (a) improvements to the road network to assist in the development of projects of major significance to the State or where there has been a marked increase in non-local traffic as a result of government development or tourist policies; and
- (b) improvements to and/or rehabilitation of the road network necessary to compensate for increased heavy traffic resulting from rail line closures, reduced train services or the development of regional freight centres by the Victorian Railways Board.

Funds provided for special impact works were in addition to the normal allocations and were subject to a municipal council contribution no greater than the contributions for normal allocations. The allocations were made from the Country Roads Board's revenue derived from State sources.

In 1982/83 \$1,834,260 was provided for special impact works which comprised an original allocation of \$1,821,700 and supplementary allocations of \$12,560. Applications for funds totalled \$34,292,370.

In June 1983 \$1,939,500 was allocated for special impact works in the financial year 1983/84. Applications for funds totalled \$22,578,000.

## **Municipalities Forest Roads Improvement Fund**

In 1982/83 this Fund, which was established in the State Treasury in 1955 for the purpose of assisting Municipal Councils in the improvement and protection of roads adjacent to State Forest areas and to facilitate the extraction of forest produce, was incorporated with the Works and Services Account. An amount of \$50,000 was made available from the Works and Services Account during 1982/83 increasing the total contributions for works of this nature to \$1,185,000. The Country Roads Board's Divisional Engineers, in consultation with appropriate Forests Commission Officers, determined the priority of eligible works. Allocations for particular works were made to municipal councils with the agreement of the Forests Commission but the limited funds available only enabled grants to be made for the most urgent works.

At the beginning of 1982/83 the cumulative allocations were far in excess of the progressive contributions. Consequently further grants were not possible in 1982/83.

Applications from municipal councils, as at 30 June 1983, exceeded \$700,000 and representations were made in 1982/83 to the Treasurer for increased contributions to cover the existing commitments and to enable further allocations of funds to be made to municipal councils.

## **Access roads to Surf Life Saving Clubs**

During 1980, following representations from the Surf Life Saving Association of Australia, consideration was given to a proposal that funds be provided to improve access roads to surf life saving club buildings.

Because of the special purpose of these access roads—for emergency situations and the provisioning of club facilities—and the fact that certain of these roads would not be open for vehicular use by the general public, it was decided that the need for improvements to the access roads should be individually assessed, with individual grants being made as appropriate from the Transport Fund.

Where it was decided that improvements should be made to a particular access road, the work was carried out by the relevant municipal council which also made a financial contribution to the work.

It was estimated that an amount of \$330,000 would be required over a period of four years to implement improvements considered to be necessary to access roads to surf life saving club buildings.

In the 1980/81 financial year allocations totalling \$86,605 were made by the Country Roads Board from the Transport Fund. Expenditure to the end of June 1982 totalled \$86,411 leaving a small balance of \$194. As the Transport Fund was abolished under the Public Account (Trust Funds) Act 1982 No. 9861, the amount of \$194 required for expenditure in 1982/83 was financed from the Country Roads Board's revenue derived from State sources.



## Natural disaster restoration works

Assistance to individual authorities following natural disasters is provided by the State Government and, in some instances, the Commonwealth Government to cover the costs incurred in undertaking works to protect and restore public and community assets and to restore essential services, other than costs incurred in restoring assets beyond the standards which existed prior to the disaster.

Under a Commonwealth/State agreement which came into effect on 1st January 1979, where the State Government has expended more than \$7 million on restoration works, Commonwealth financial assistance is provided on a \$3 : \$1 basis with regard to any single natural disaster for which expenditure by the State Government on restoration works exceeds \$700,000.

During the 1982/83 financial year grants totalling \$684,626 were made by the State Government for road and bridge restoration works following natural disasters as follows:

• Severe flooding in northern Victoria during June, July and August 1981 (Supplementary grants)	\$544,550
• Windstorms in January 1982 in the Cities of Altona and Bulla	\$ 45,546
• Bush fires in February 1982 in the Shires of Broadford and Kilmore	\$ 18,100
• Grants carried forward from previous years for the restoration of roads and bridges damaged by storms	\$ 76,430
	<hr/>
	\$684,626

**Reconstruction of the side track at the Grassy Creek Bridge on the Great Ocean Road, which was destroyed during the Ash Wednesday bushfires in February 1983**



## Access roads to schools

In January 1979, municipal councils were invited to submit applications for funds to construct urgently needed access roads to schools. This action was taken pursuant to Government policy that the Country Roads Board should make annual allocations over the three year period 1978/79 to 1980/81 from funds made available from the Transport Fund for the purpose of providing safe access to schools. A total amount of \$59,060 was allocated in 1978/79 and further allocations of \$86,050 in 1979/80 and \$72,300 in 1980/81 were made for this work. In order to satisfy all applications considered to be eligible, the period was extended to include the financial year 1981/82, when a further allocation totalling \$61,250 was made. Of this amount a total expenditure of \$48,670 was incurred leaving a balance of \$12,580. As the Transport Fund was abolished under the Public Account (Trust Funds) Act 1982 No. 9861 the amount of \$12,580 required for expenditure in 1982/83 was financed from the Country Roads Board's revenue derived from State sources.



## **39th Conference of Municipal Engineers**

The 39th Conference of Municipal Engineers, convened by the Country Roads Board in conjunction with the Local Government Engineers' Association of Victoria, was held at Head Office on Monday 7th March and at the Camberwell Civic Centre on Tuesday 8th March 1983. The theme adopted for the Conference was 'Optimisation of Resources—Money, Materials, Management', and the programme included a seminar on the Tuesday afternoon to which municipal councillors were also invited.

Approximately 250 local government, Country Roads Board and other authority engineers attended the Conference technical sessions, while an additional 200 councillors and representatives from other authorities attended the seminar sessions. The opening address of the Conference was delivered by Dr G Trinca, National Chairman, Road Trauma Committee, Royal Australasian College of Surgeons, who spoke on the road accident problem. The Minister of Transport, Mr Steve Crabb MP, opened the seminar sessions, and the following papers were presented: 'Changes in Transport Administration in Victoria' by Mr A S Reiher, Director-General of Transport, Victoria; 'Management in Local Government' by Mr G F Craig, Chairman, Albury/Wodonga Development Corporation; and 'Optimisation of Resources for Future Road Development' by Mr T H Russell, Chairman, Country Roads Board. Professor L K Stevens, Dean of the Faculty of Engineering, University of Melbourne, presented a summary of the Conference and concluding remarks with particular reference to the Seminar papers. Other papers delivered at the Conference covered road safety, planning, water treatment, asphalt, subsurface drainage, fire control in tips, computer technology, project programming, and low cost bridges.

The co-operation of the Local Government Engineers' Association of Victoria in planning the conference and seminar, particularly those members who contributed to the success of the conference and seminar by presenting papers, was greatly appreciated.

## **Significant works**

**Significant works completed or substantially completed during the financial year 1982/83:**

### **Main roads**

Main roads are roads linking centres of population with other centres or with areas of industry, commerce or settlement. Generally main roads have been constructed and maintained by municipal councils to the satisfaction of, and with financial assistance from, the Country Roads Board. In some cases, at the request of the council and with the approval of the Minister, works have been carried out under the direct supervision of the Country Roads Board's staff. As at 30th June 1983, there were 14,851 km of main roads declared under the Country Roads Act.

#### **Alexandra Shire**

Taggerty-Thornton Road: Reconstruction and realignment of 3.5 km.

#### **Berwick City**

Belgrave-Hallam Road: Construction of a 1.4 km bypass of Narre Warren North.

#### **Brunswick City**

Brunswick Road: Reconstruction of 0.5 km between Stranger Street and Lygon Street.

#### **Buñ Buñ Shire**

Old Sale Road: Reconstruction of 2.3 km at Robin Hood.

#### **Camberwell City**

Canterbury Road: Reconstruction of 0.5 km between Wattle Valley Road and Kennealy Street.

#### **Cobram Shire**

Benalla-Tocumwal Road: Reconstruction of 2.6 km near Katamatite.

#### **Cranbourne Shire**

Berwick-Cranbourne Road: Reconstruction of 1.7 km between Thompsons Road and Grices Road.

#### **Essendon City**

Pascoe Vale Road: Reconstruction and duplication of 0.4 km between Lind Street and Moonee Ponds Creek, including channelised intersections and signal installation at Peck Avenue and Stewart Street.

#### **Grenville Shire/Ballarat Shire/Ballaarat City**

Ballarat-Carngham Road: Construction of a roundabout at the Learmonth Street/Wiltshire Lane intersection at Ballarat West.

#### **Healesville Shire**

Healesville-Kooweerup Road: Reconstruction of 2.2 km south of Healesville.

**Korumburra Shire**

Drouin-Poowong Road: Reconstruction and realignment of 3.2 km north of Poowong.

**Maryborough City**

Ballarat-Maryborough Road: Duplication of 0.7 km between the Pyrenees Highway and the Maryborough-Ararat railway.

**Myrtleford Shire**

Myrtleford-Vackandandah Road: Reconstruction and realignment of 2.3 km north of Myrtleford.

**Narracan Shire**

Walhalla Road: Reconstruction and realignment of 1.8 km of approaches to the Tanjil River bridge north of Moe.

**Oxley Shire**

Mansfield-Whitfield Road: Reconstruction and realignment of 3.2 km near Whitfield.

**Ringwood City**

Mt Dandenong Road: Reconstruction of 1.2 km from Eastfield Road to Velma Grove.

**Sebastopol Borough**

Colac-Ballarat Road: Duplication of 0.4 km south from the Glenelg Highway intersection in Sebastopol.

**Sherbrooke Shire**

Olinda-Monbulk Road: Reconstruction of 1.3 km between Invermay Road and Upper Coonara Road.

**Tallangatta Shire**

Shelley-Jingellic Road: Reconstruction and realignment of 3 km.

**Warragul Shire**

Brandy Creek Road: Reconstruction and realignment of 1.0 km north of Warragul.

**Wodonga City**

Beechworth-Wodonga Road: Reconstruction and duplication of 0.6 km in Wodonga.

**Yea Shire**

Yarra Glen-Yea Road: Reconstruction and realignment of 3 km including the widening of Katy's Creek bridge.

**Unclassified roads**

Roads which were not declared or proclaimed under the provisions of the Country Roads Board were referred to as unclassified roads. These roads were the responsibility of municipal councils, but each year the Country Roads Board provided financial assistance towards the cost of construction and maintenance works, generally in accordance with priorities allotted by municipal councils. Municipal contributions towards the cost of such works were determined at the time the allocation was made, and were based on many factors including the nature, extent and location of the particular work and the financial position of the municipal council concerned.

**Ballaarat City**

Humffray Street North: Reconstruction of 0.5 km between King Street and Queen Street in Ballarat East.

**Box Hill City**

Belmore Road: Reconstruction of 1.2 km between Winfield Road and Elgar Road.

**Camberwell City**

Toorak Road: Widening and reconstruction of 0.6 km between Glen Iris Road and Camberwell Road.

**Coburg City**

Melville Road: Reconstruction of 0.8 km between Reynard Street and Moreland Road.

**Diamond Valley Shire**

Ryans Road: Construction of 1.3 km between Progress Road and Wattletree Road.

**Heidelberg City**

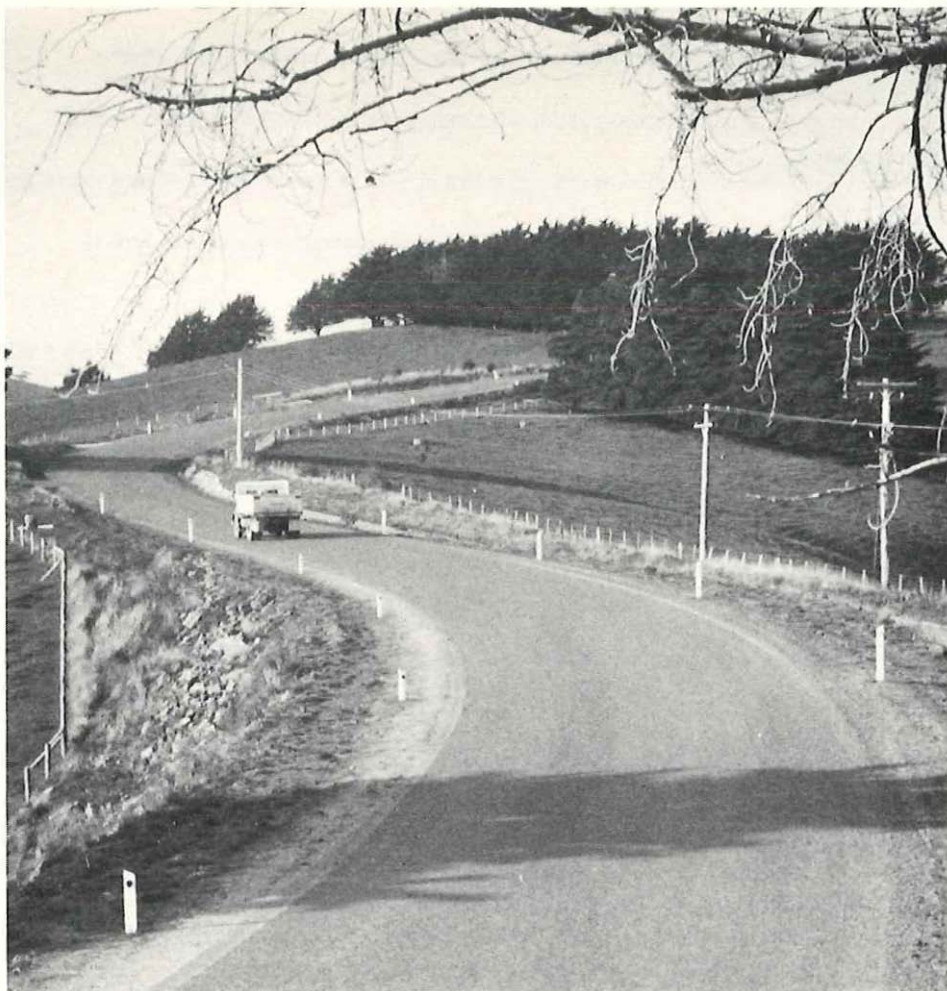
Upper Heidelberg Road: Reconstruction of 1.0 km between Studley Road and Banksia Street.

**Keilor City**

Buckley Street: Construction of a 0.8 km link over Steeles Creek between Lily Street and Medway Road.

Keilor-St Albans Road: Construction of a 1 km deviation over Taylors Creek between Campaspie Crescent and Driscolls Road.

Sunshine Avenue: Construction of 3 km between Taylors Road and McIntyre Road.



**The newly reconstructed and realigned One Chain Road, Korumburra**

**Korumburra Shire**

One Chain Road: Reconstruction and realignment of 3 km west of Ruby.

**Maffra Shire/Rosedale Shire**

Myrtlebank-Fulham Road: Construction of a three-span concrete bridge and approaches over the Thompson River at Myrtlebank.

**Melbourne City**

Princes Street: Reconstruction between Nicholson Street and Lygon Street, including improvements to the Lygon Street intersection and upgrading traffic signals at Lygon Street and Rathdowne Street.

Footscray Road/Dudley Street: Reconstruction of the intersection and approach roads.

**Mordialloc City**

Balcombe Road: Asphalt resurfacing of 1.2 km between the Nepean Highway and Plummer Street.

**Morwell Shire**

Commercial Road Extension: Construction of a 0.8 km extension to connect with the Midland Highway at Morwell East including a three span reinforced concrete road over rail overpass.

**Northcote City**

High Street: Reconstruction of 0.9 km between Rossmoyne Street and Dennis Street.

**Nunawading City**

Terrara Road: Reconstruction between Timbertop Drive and Ngumby Court.

Surrey Road: Reconstruction between Maroondah Highway and Fir Street.

**Oakleigh City**

Burlington Street: Reconstruction of 1.2 km between Hanover Street and Huntingdale Road.



**Richmond City**

Coppin Street: Reconstruction of 0.8 km between Bridge Road and Swan Street.

**South Gippsland Shire**

Foster-Promontory Road: Reconstruction and realignment of 1.3 km south of Foster.

**Warragul Shire**

Buln Buln Road: Reconstruction and realignment of 1.4 km west of Brandy Creek township.

**Wodonga City**

Chapple Street: Duplication and construction of a roundabout at Lawrence Street.

## **Visits to Municipalities**

In 1913 the first members of the Country Roads Board toured the State to decide which roads were to be declared as main roads and financed from central funds. From that time, most municipalities in Victoria have been visited by the Country Roads Board at approximately six yearly intervals. These visits included a tour of municipal roads and bridges with councillors and council officers, and discussions on local road problems, road works programmes and road finance. The visits provided the Board Members with up to date information on road conditions and developments in the municipalities.

**During the year, members of the Country Roads Board made official visits to twenty-nine municipalities:**

Cities of Altona, Box Hill, Colac, Essendon, Horsham, Keilor, Knox, Malvern, Sale and Traralgon.

Borough of Wonthaggi

Shires of Arapiles, Avoca, Colac, Gisborne, Goulburn, Metcalfe, Mortlake, Morwell, Oxley, Phillip Island, Seymour, Traralgon, Upper Murray, Upper Yarra, Werribee, Wimmera and Yackandandah.

The Country Roads Board has recorded its appreciation of the assistance given by the councillors and municipal officers during their visits.

## **Deputations**

The Country Roads Board was always prepared to discuss matters of common interest with representatives of councils or other official bodies. These discussions have provided a useful channel of communication with municipal administration and local interests.

**During the year deputations were received from the following councils:**

The Cities of Benalla, Collingwood, Kew and Mildura and the Shires of Avoca, Bungaree, Chiltern, Seymour, Wycheproof and Yea.

The main topics raised by the councils were the need for additional road funds, road classifications, road planning and design, traffic management and industrial matters.

Deputations were also received from the Local Government Engineers' Association, the Bicycle Institute of Victoria, the Victorian Farmers and Graziers Association, the Mt Hotham Chamber of Commerce, commercial enterprises and staff associations.

# Traffic Services

## Linemarking

During the year, \$3.9 million was spent maintaining STATCON markings and extending and maintaining linemarking and pavement markers throughout the State. The length of linemarking maintained was as follows:

- State highways and freeways—20,000 km, or 50,300 km of equivalent standard stripe.
- Other declared or proclaimed roads—13,600 km or 24,700 km of equivalent standard stripe.
- Unclassified roads—4,640 km, or 8,465 km of equivalent standard stripe.

A standard stripe is a solid stripe 3 m long and 100 mm wide with a 9m gap. The term "equivalent standard stripe" is a measure of the length of all forms of longitudinal linemarking expressed as an equivalent area of paint in a standard stripe.

The cost of this work was:

- \$54/km of standard stripe.
- \$95/km of 100 mm wide solid stripe.

The cost of extending and maintaining the system of raised reflective pavement markers on declared roads was \$352,000 and 78,100 reflective markers were laid.

In addition, the linemarking machines were used to paint about 200,000 sq m of STATCON markings and arrows at a cost of \$6.50 per sq m and a further 6,760 sq m of "Degadur" long life pavement markings were installed at intersections at a cost of \$26.00 per sq m.

## Snow clearing

Snow clearing of roads to snow resorts was carried out during the year on the Alpine Road (Mt Hotham), Mt Buffalo Road, Mt Buller Road, Bogong High Plains Road (Falls Creek), Mt Donna Buang Road, Lake Mountain Road and the Omeo Highway. Snowfall conditions during the 1982 winter were lighter than had been experienced for many years, which was a complete contrast to the heavy snowfalls of 1981. Snow clearing gangs were engaged more in de-icing roadways in the frosty weather than in actual snow clearing.

Snow clearing of car parks was carried out at all resorts as a charge against the respective administering authorities or against a special Country Roads Board/National Parks Service grant in the case of Mt Buffalo.

Night snow clearing was carried out at Mt Hotham on Friday and Saturday nights when required during the snow season.

Three 6-wheel-drive grader-snowploughs, five 4-wheel-drive grader-snowploughs, one light grader, three Rolba R1500 snowblowers, two Rolba R400 snowblowers, one Unimog snowblower and a MAN truck snowplough were used to carry out snow clearing for the season.

Details of snowfalls recorded during the 1982 winter by snow clearing personnel, together with the costs of snow clearing are shown in the following table:

Road	Resort	Earliest snowfall	No. of snow days	Cost 1982 season
Alpine Road	Mt Hotham	2 June 1982	29	\$373,375
Mt Buffalo Road	Mt Buffalo	25 June 1982	10	\$89,600
Mt Buller Road	Mt Buller	2 June 1982	19	\$88,416
Bogong High Plains Road	Falls Creek	2 June 1982	23	\$102,717
Mt Donna Buang Road	Mt Donna Buang	21 May 1982	20	\$9,040
Lake Mountain Road	Lake Mountain	21 May 1982	25	\$23,670
Omeo Highway	173-196 km (through route)	18 June 1982	8	\$9,624

- (a) Costs do not include clearing of car parks for Committees of Management.
- (b) The cost of night snow clearing at Mt Hotham for the 1982 season was \$57,532 and this amount is included in the cost of \$373,375.
- (c) The Bogong High Plains Road cost was for the first 1.6 km of the road plus 80% of the cost of clearing the balance of the length of the road. The other 20% of the cost was charged to the State Electricity Commission and is included in the cost of \$102,717.

## Emergency services

The Country Roads Board provided a free emergency telephone service and assistance to drivers of immobilised vehicles on the following eight major metropolitan traffic routes:

- Eastern Freeway
- Kings Bridge/Queens Way
- Mulgrave Freeway/South Gippsland Freeway
- Tullamarine Freeway
- South Eastern Freeway
- West Gate Freeway
- Calder Freeway
- Mornington Peninsula Freeway/Frankston Freeway.

During the year, the emergency telephone system was extended by the installation of 18 emergency telephones on the Mornington Peninsula/Frankston Freeway.

The objective of this 24 hours per day emergency service has been the provision of assistance for drivers of vehicles with minor mechanical problems, including a towing service so that immobilised vehicles could be cleared from the freeway, and the sale of sufficient petrol to enable a vehicle to be restarted and driven clear of the freeway.

The number of calls to the Country Roads Board's Emergency Service Centre at Head Office increased by 4,961 calls to 32,229 calls during financial year 1982/83.

The Emergency Service Centre has permitted continuous radio communication with road maintenance personnel and Traffic Officers outside normal working hours. The Centre has also been responsible for the provision of up to date information on road conditions outside normal working hours, especially during the occurrence of floods or bush fires. The following table shows the distribution and types of calls for emergency services received during financial year 1982/83:

### Emergency services – call analysis

Fault	Total	% of all calls
<b>Roadside emergency telephone</b>		
Petrol	4,344	13.48
Tyres	1,490	4.62
Radiator	2,043	6.34
Mechanical	8,214	25.49
Hoax	2,102	6.52
Hazard	590	1.83
Accidents	423	1.31
Tows	1,422	4.41
Other	2,856	8.86
Sub Total	23,484	72.86
<b>Ordinary telephone</b>		
Hazard	384	1.19
Traffic lights	3,001	9.32
Other	5,360	16.63
Total	32,229	100

### Emergency services – road analysis

Road	No. of calls	%
Eastern Freeway	6,020	25.64
Mulgrave Freeway	6,221	26.49
Tullamarine Freeway	6,165	26.25
South Eastern Freeway	2,082	8.87
West Gate Freeway	1,349	5.74
Kings Bridge/Queens Way	227	0.97
Calder Freeway	1,048	4.46
Mornington Peninsula/Frankston Freeway	372	1.58
Total	23,484	100





**A stranded motorist using one of the newly-installed emergency telephones on the Mornington Peninsula Freeway, between Springvale Road and the Frankston-Cranbourne Road**

## **Control of overdimensional and overweight vehicles**

In order to maintain safe conditions for road users and also to protect both bridges and road surfaces from damage, limits have been imposed by law on the width, height, length and mass of vehicles and their loads.

The Country Roads Board had the responsibility under the provisions of the Motor Car Act 1958 for issuing permits for the movement of vehicles exceeding the mass, height, length and width limits prescribed by the Motor Car Act:

- (a) on roads declared or proclaimed under the provisions of the Country Roads Act; and
- (b) for a journey which included unclassified roads in two or more greater metropolitan municipalities as defined in the Motor Car Act.

The following table illustrates the number and types of permits issued during the year compared with those issued during the financial year 1981/82.

	1981/82	1982/83
Single trip permits	23,393	20,913
Annual permits	4,222	5,508
*NAASRA permits	2,430	-
NAASRA height permits	306	1,342
Total number of permits issued:	30,351	27,763

\*From the 16th December 1981, these permits became redundant due to the operation (in part) from that date of the Motor Car (Mass and Dimension Limits) Act 1981. This Act implemented the revised mass and dimension limits for motor cars and trailers recommended by NAASRA and adopted by the Australian Transport Advisory Council, except for the NAASRA recommended height limit of 4.3 m.

There were 176 permits issued for loads in excess of 100 tonnes during the financial year. The most significant of these loads involved the movement of power generation equipment to State Electricity Commission sites in South Morang, Moorabool and Loy Yang.

In July 1982 and January, February and April 1983 four loads of SEC machinery, weighing 576, 590, 590, and 560 tonnes gross respectively were transported from South Wharf to Loy Yang. Two other SEC heavy loads of 255 and 259 tonnes gross were moved in November and December 1982 respectively from Footscray Dock to Moorabool.

## Prosecutions

Policing and enforcement of heavy and overdimensional vehicles was effected by the Country Roads Board's twenty-two Traffic Officers and six Police Officers seconded to the Country Roads Board. Two of the attached Police Officers concentrated on warrants for outstanding unpaid fines for prosecutions brought by the Country Roads Board. The amount collected in unpaid fines during 1982/83 was \$228,202.

The number of offences

in fines and costs which was paid into the Consolidated Fund.

The increase in fines was a direct result of the penalty being increased from \$36 to \$80 per tonne for all offenders detected after 16th December, 1981. The effect of the increase had not shown in the figures until financial year 1982/83 due to the delay in court hearings.

## Traffic Signals

During the year further expansion of the SCRAM (Signal Co-ordination of Regional Areas in Melbourne) traffic signal project continued.

The SCRAM project is designed to improve traffic flow along roads by linking traffic signals to a regional computer. Changes in traffic flow are monitored by the computer which alters the signal phases to best suit the existing traffic conditions. The system also provides reports to allow rapid detection of any faults that may occur.

The implementation of the traffic signals programme, including SCRAM, for 1982/83 was carried out by a joint management team using the combined resources of the Country Roads Board and the Road Safety and Traffic Authority.

This joint arrangement was approved by the Minister of Transport, Mr Steve Crabb MP, at the start of the financial year when he also endorsed the adoption of SCRAM for all signal linking works in Melbourne. During the year a regional computer was installed at Kew, adding to the existing computers at Blackburn, Footscray, Springvale and St Kilda. By the end of the financial year a total of 285 intersection and pedestrian signal sites in the metropolitan area were connected to the SCRAM system, 115 of these having been connected during the year. The following sections of road were linked to SCRAM during the year: Springvale Road between Heatherton Road and the Maroondah Highway; the Hume Highway between Bakers Road and Barry Road; Barkers Road between Burke Road and Victoria Street; along Bridge Road and Swan Street, Richmond; and along High Street and St Georges Road, Northcote.

A major study to determine the results of implementing SCRAM in Melbourne was completed during the year by the Country Roads Board. The study involved the measurement of travel time, traffic delays and fuel consumption under different traffic signal control modes along the Maroondah Highway between Box Hill and Ringwood. The CSIRO, University of Melbourne and the Australian Road Research Board assisted in the conduct of the study and in data collection. The study was carried out as part of a major research and development project undertaken with funds provided by the National Energy Research Development and Demonstration Council (NERDDC). The aim of this project was to provide descriptive mathematical models which would estimate vehicle performance, including fuel consumption, from measured route and vehicle operating characteristics. These models would assist with traffic management projects aimed at improving route performance.

Detailed analysis of the results indicated that significant savings in travel time and fuel consumption can be achieved by traffic signal linking. In a 24 hour period, the study recorded significant savings when comparing SCRAM traffic signals to isolated control traffic signals, as shown below:

- |                        |                |
|------------------------|----------------|
| • journey time         | 18 % reduction |
| • fuel consumption     | 12 % reduction |
| • number of stops      | 40 % reduction |
| • delay time           | 45 % reduction |
| • traffic flow (speed) | 20 % increase. |

The study highlighted areas where traffic signal cycle length could be improved and action was taken in the latter part of the financial year to implement these improvements.

## Traffic Information Services and Driver Education

The Country Roads Board continued its practice of issuing weekly motoring bulletins to the media, police, fire brigade and ambulance services to provide information on the location of works which could cause delays in traffic flow. In addition, special snow and flood reports were issued as required, describing road conditions. The Country Roads Board also issued a Summer Driving brochure to assist motorists in preparing for trips during the summer holidays, and a littering and vandalism brochure to inform the public, particularly children, of this ever-increasing problem along the roadsides.



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# *Planning and Environment*

The road planning function of the Country Roads Board was an essential and important activity, involving many diverse skills. The staff of the Planning Sub-branch brought together engineering, sociological, economic, environmental and town planning expertise in formulating and evaluating future road proposals. In addition, specialised equipment was used to provide technical information on noise and air pollution, landscaping and general environmental matters.

Significant planning studies in which the Country Roads Board was involved during the year are described below:

## **Western Highway, Princes Highway to Ashley Street**

During the year the Country Roads Board continued investigations into major improvements on a 3.5 km section of the Western Highway between the Princes Highway and Ashley Street in the Cities of Footscray and Sunshine. Limited widening proposals for this section of the highway have been included for some years in the Melbourne Metropolitan Planning Scheme. The Western Highway is the main continuous east-west arterial road in the western corridor and it carries approximately 30,000 vehicles per day, including a high proportion of commercial vehicles. The highway is also the major route linking Melbourne to Ballarat and the west of the State. The length of highway under investigation comprises four traffic lanes without a central median. The lengths of highway at each end of the study area have six traffic lanes with a central median.

The investigation considered the need for improved traffic conditions, the options available and their major implications on the traffic patterns and the environment of the corridor. One of the options considered was the provision of dual carriageways along this length of the highway, which would result in a development similar to the Nepean Highway widening project which is currently under construction between Elsternwick and Moorabbin.

Two information bulletins were prepared and distributed during the year to local residents and a social impact survey was undertaken by a consultant sociologist. On completion of the initial investigation, all the alternatives along with a favoured alternative will be presented in a Summary Report and a public display will be held to enable members of the public to comment prior to a final decision being made.

Following this consultation phase the proposals will be reviewed in the light of all comments received and then, if required, a planning scheme amendment will be sought for the final proposal.

The construction of an approved proposal is not envisaged until the late 1980s due to the necessary planning and design activities, and financial commitments on other major projects.

## **Great Ocean Road, Stones Corner to Otway Lighthouse Road Section**

During the year the Country Roads Board prepared an Environment Effects Statement for the section of the Great Ocean Road from Stones Corner to Otway Lighthouse Road.

The Statement dealt with the engineering, environmental, social and economic considerations associated with alternative proposals to provide improvements to this section of the Great Ocean Road. The Statement contained information relating to the investigations and consultation undertaken by the Country Roads Board and outlined the considerations that led to the adoption of the favoured alternative.

The Statement concluded that the Great Ocean Road is a unique tourists' road with magnificent scenery and serving tourist, local, regional and interstate traffic.

This section of the road is of an inadequate standard resulting in a high accident rate compared with other two-lane, two-way rural roads.

Ideally, the alternative adopted must provide safe and efficient operating conditions for all types of traffic, have minimum impact on the environment, create opportunities for provision of wayside stops and scenic walks, and not be too expensive to construct. The 7 km alternative favoured by the Country Roads Board followed a new alignment generally on the coastal side of the existing road and satisfied the above requirements.

The Country Roads Board forwarded the Statement to the Ministry for Conservation and also exhibited the Statement at a public display at Apollo Bay in January 1983 at which time interested parties were invited to submit comments to the Ministry for Conservation. As at 30th June 1983 the Ministry for Conservation was evaluating the comments received.



## General

In addition to the Road Planning Studies described, other planning investigations on which work was undertaken during the year included:

- Calder Highway, Diggers Rest to Gisborne : construction of a duplicate carriageway to provide a four lane divided highway with provision for ultimate upgrading to freeway standard.
- Calder Highway, Keilor to Diggers Rest : construction of a four-lane divided highway with provision for upgrading to freeway standard.
- Princes Highway, Trafalgar Section : construction of a duplicate carriageway to provide a four-lane divided highway.
- Punt Road widening : planning for the duplication between Bridge Road and the Yarra River.

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# *Other Activities*

## **Public relations**

The Country Roads Board continued to pursue its policy of informing the public of its functions and works, and prepared news releases, publications, audio-visual productions, and displays as means for carrying out this activity.

## **Publications**

During the year the following publications and pamphlets were issued:

- CRB News Nos. 49, 50, 51
- Great Ocean Road, a Brief History
- Western Freeway, Bypass of Melton
- Route 1, Warragul Bypass
- Urban Arterial Roads
- See Yourself as a Litterbug or Vandal?
- Seventy Years of Growth 1913 - 1983
- Highlights of 1981/82
- Summer Driving (reprint)
- Roads (reprint).

Information bulletins were produced for the following projects:

- Nepean Highway widening, Elsternwick to Moorabbin.
- Princes Highway widening, Malvern.

These information bulletins were issued to Members of Parliament, residents, councils, and the media, and outlined current progress on the projects concerned.

## **Displays**

The 1982 Royal Melbourne Show display was part of an overall Ministry of Transport display. The Country Roads Board's section of the display featured the stages of road construction and snowclearing.

The CivEnEx field display at Werribee in March 1983 featured a display on the Country Roads Board's roadworks signing code.

In addition small displays were featured at the following venues:

- Warragul Agricultural Show
- Cranbourne Country Fair.

## **Co-operation with Army Reserve**

The Country Roads Board continued its sponsorship of Royal Australian Engineers Supplementary Reserve units of the Australian Army Reserve, in conjunction with other Victorian Government instrumentalities. The sponsoring authorities undertake public works akin to military engineering tasks and the Supplementary Reserve units provide the means of using the civilian knowledge and skills of members to military advantage.

With complementary training in purely military subjects, a nucleus of army engineers capable of rapid expansion in time of defence emergency has thereby been developed. The units sponsored by the Country Roads Board were the Headquarters 22 Construction Regiment and the 107 Plant Squadron (Heavy).

The 1982 annual camp was held in the Lake Glenmaggie-Licola area, Gippsland where the regiment carried out field exercises with each of the three squadrons carrying out various construction tasks. The 107 Plant Squadron constructed 10 km of forest access road in rugged country in the short space of two weeks.

Other activities during the year included the launching of a Bailey bridge to carry the Pyrenees Highway over the Melbourne - Adelaide rail line at Ararat while a new overpass was constructed.

The 22 Construction Regiment was commanded by Lt Col WFJ Hardy ED, an engineer with the Melton Waterworks Trust. The 107 Plant Squadron (Heavy) was commanded by Capt HR Ellis, an engineer with the Urban Projects Sub-branch of the Country Roads Board. As at 30th June 1983, nine members of the staff were officers of the regiment and the total strength of the regiment was some 350 personnel.

## Roads of tourist interest

Between financial years 1960/61 and 1981/82 the State Government provided repayable loan funds from the Works and Services Account totalling \$4,494,000 for expenditure on roads of a tourist nature other than roads proclaimed as tourists' roads under the provisions of the Country Roads Act. No such loan funds were made available by the State Treasury in 1982/83. The Country Roads Board, however, was aware that works had commenced with funds available under previous allocations and considered that these works should proceed. Funds totalling \$211,992 were therefore made available to cover:

- |  |           |
|--|-----------|
| (a) unexpended balances of allocations at 30th June 1982     | \$105,892 |
| (b) additional funds to complete essential works in progress | \$106,100 |

Applications for funds from municipal councils for works on roads of tourist interest totalled in excess of \$4.0m and the applications included many worthwhile projects which because of the limited funds available could not proceed. Representations were made to the State Treasury for the provision of special funds to be continued.

## National Park roads

Between financial years 1963/64 and 1981/82 the State Government provided repayable loan funds from the Works and Services Account totalling \$1,897,000 for expenditure on roads and associated purposes in or near National Parks. No such loan funds were made available by the State Treasury in 1982/83. However, in order to meet the costs of essential works and to cover commitments from previous allocations, the Country Roads Board provided a total of \$190,012 from its normal sources of revenue in 1982/83. Allocations for essential works such as patrol maintenance and resealing programs totalled \$120,600 and the amount provided to cover commitments was \$69,412. The allocations were made after consultation with the National Parks Service and were for works in or near the following National Parks:

Beechworth Historical Park	Beechworth Shire
Bogong National Park	Bright Shire
Brisbane Ranges National Park	Bannockburn & Corio Shires
Bulga National Park	Albertyn Shire
Cape Schanck National Park	Flinders Shire
Cathedral Range National Park	Alexandra Shire
Chiltern Historical Park	Chiltern Shire
Churchill National Park	Knox City
Croajingolong National Park	Orbost Shire
Discovery Bay National Park	Portland Shire
Eildon National Park	Mansfield Shire
Ferntree Gully National Park	Sherbrooke Shire
Fraser National Park	Alexandra Shire
Glenaladale National Park	Bairnsdale Shire
Hattah Lakes National Park	Mildura Shire
Holey Plains National Park	Rosedale Shire
Kinglake National Park	Eltham & Whittlesea Shires
Lind National Park	Orbost Shire
Little Desert National Park	Dimboola Shire
Morwell National Park	Morwell Shire
Mount Baw Baw National Park	Narracan Shire
Mount Buffalo National Park	Narracan Shire
Mount Burrowa Pine National Park	Upper Murray Shire
Mount Eccles National Park	Minhamite Shire
Mount Richmond National Park	Portland Shire
Mount Samaria National Park	Mansfield Shire
Organ Pipes National Park	Keilor City & Bulla Shire
Pink Lakes National Park	Walpeup Shire
Port Campbell National Park	Heytesbury Shire
Snowy River National Park	Orbost Shire
Tarra Valley National Park	Albertyn Shire
Tingaringy National Park	Orbost Shire
The Lakes National Park	Rosedale Shire
Warby Ranges National Park	Wangaratta Shire
Warrandyte National Park	Doncaster & Templestowe City
Werribee Gorge National Park	Bacchus Marsh & Ballan Shires
Wilson's Promontory National Park	South Gippsland Shire
Wonnangatta-Moroka National Park	Oxley Shire
Wyperfeld National Park	Karkaroc Shire



The Country Roads Board was aware of the need to maintain existing roads to a satisfactory standard and to develop new roads in and/or leading to National Parks. Consequently the Country Roads Board was prepared to provide limited funds for these roads from its normal sources of revenue in future years. However, because the level of assistance is not likely to meet the road needs, representations have been made to the State Treasury for the provision of special funds to be continued.

## **National Association of Australian State Road Authorities**

The National Association of Australian State Road Authorities (NAASRA) is an organisation of the Road Authorities of the six States, the Commonwealth Department of Housing and Construction and the Northern Territory Department of Transport and Works. The members of NAASRA are the heads of the various authorities. The Association was established in 1934 as the Conference of State Road Authorities and adopted its present name in 1959.

NAASRA aims to provide a central organisation where, by co-operative effort, a uniform approach to the development and improvement of the national road system can be achieved. Over the years, this co-operation has enabled the Association to co-ordinate and rationalise road and bridge design standards, construction and maintenance practices, and road research projects, and also to gather and publish facts about Australia's principal roads and their financing. From these activities NAASRA has developed a national approach to Australia's road problems.

The technical work of NAASRA is performed by the Principal Technical Committee (consisting of the chief engineering officers of the authorities) and a number of standing and ad hoc committees on which the Board is represented. NAASRA's views on such matters as finance for roads and road design, construction and maintenance standards on national highways, and road vehicle limits are considered by the Australian Transport Advisory Council (ATAC) Road Advisers' Group. This Group comprises the heads of the State Road Authorities, and the Commonwealth Department of Housing and Construction. The group advises ATAC, the meeting of Transport Ministers which determines national transport policies.

**The following NAASRA meetings were held during the year:**

- 68th (Annual Meeting) Port Macquarie, 1st and 2nd November 1982 attended by Mr T H Russell, Chairman.
- 69th (Intermediate Meeting) Melbourne, 10th May 1983, attended by Mr T H Russell, Chairman and Mr N L Allanson, Member.

**Items considered by NAASRA during the year included:**

- XVII World Road Congress (see article below for further information)
- Australian Development Assistance Bureau courses.
- Commonwealth Roads Grants legislation.
- State roads legislation.
- Road vehicle limits.
- Road studies.
- Route numbering.
- Full-scale pavement testing.
- Axle load surveys and measurement.
- Publications—technical and general information.

## **XVII World Road Congress**

The 17th World Road Congress of the Permanent International Association of Road Congresses (PIARC) will be held at the Sydney Opera House from 8 to 15 October 1983. Road Congresses are held every four years to disseminate information on the latest technology and developments between member countries about roads and road transport. This will be only the second time since the founding of PIARC in 1909 that a Congress has been held in the southern hemisphere. About 2,000 delegates and accompanying persons are expected to attend.

PIARC has its headquarters in Paris and is a principal international roads association and an adviser to the United Nations on road matters. Its general aim is to foster progress in the construction, improvement, maintenance, use and economic development of roads, and to encourage the growth of road systems throughout the world.

The Congress will be followed by four post Congress study tours, two of which visit Victoria. An International Trade Fair "Road 83" is to be held concurrently with the Congress between 12-15 October 1983 at the Sydney Showground.

Mr T H Russell, Chairman, is an Executive Committee Member of the Australian Organising Committee which is overseeing the detailed arrangements for the Congress.

## **Australian Road Research Board**

The Australian Road Research Board (ARRB) was established by NAASRA in 1960 and is the focal point of road research in Australia. The Board of Directors includes the heads of the six State Road Authorities, the Secretary of the Commonwealth Department of Transport and the Executive Director of ARRB.

In 1965 ARRB was registered as a non-profit making company. Approximately 45% of its annual expenditure is provided by the Commonwealth Government through the Department of Transport and the remainder is shared by the six State Road Authorities on the percentage basis adopted by the Commonwealth Government in making grants to the States under the Commonwealth Roads Grants Amendment Act 1982.

The objective of ARRB is to co-ordinate, encourage and arrange continuing research into problems associated with roads and traffic in Australia. The current research programme includes projects relating to the design, construction and maintenance of roads and bridges, the planning and operation of traffic management and road safety.

The Directors of the Australian Road Research Board meet twice a year to consider management and policy matters and to review the progress of research projects. Mr T H Russell, Chairman, attended the 45th Meeting at Port Macquarie on 4th November 1982 and the 46th Meeting held at the Australian Road Research Centre, Vermont, on 11th and 12th May 1983. Mr Russell was also Chairman of ARRB for the year ending May 1983. Technical conferences for the wider dissemination of the results of research and the exchange of knowledge are held biennially. The 11th ARRB conference was held in Melbourne in August 1982 and was attended by 650 delegates with 15 overseas countries being represented.

A number of the Country Roads Board's officers served as members of the ARRB technical or specialist committees, and officers also contributed in an advisory capacity to some of the ARRB research projects.

## **Legislation affecting the Board**

### **Public Account (Cash Management Account) Act 1982 and Public Account (State Development Account) Act 1982**

These two Acts were passed in the 1982 Autumn and Spring Sessions respectively of the State Parliament. The Public Account (Cash Management Account) Act 1982 came into operation on 13th July 1982 and the Public Account (State Development Account) Act 1982 came into operation on 14th December 1982.

The Public Account (Cash Management Account) Act 1982 established the Cash Management Account to receive deposits from relevant authorities, for periods not exceeding 12 months, or those deposits resulting from determinations made by the Treasurer relating to relevant accounts.

The Public Account (State Development Account) Act 1982 established the State Development Account to receive deposits from relevant authorities, for periods exceeding twelve months, or those deposits resulting from determinations made by the Treasurer relating to relevant accounts.

The provision of both the Cash Management Account and the State Development Account (which together constitute the Victorian Development Fund) was in part one of the necessary steps to achieve the Government's plan to revise investment policies of statutory authorities. As at 30th June 1983 the Country Roads Board had not been declared a relevant authority for the purposes of these Acts and therefore could not make deposits into the Cash Management Account or the State Development Account. The Country Roads Board Fund, which was a Trust Account, was however declared by the Governor in Council to be a relevant account. This in effect meant the Treasurer was able to determine that an amount standing to the credit of the Country Roads Board Fund could be deposited to the Cash Management Account or the State Development Account.

### **Public Account (Trust Funds) Act 1982**

This Act was passed during the 1982 Autumn Session of the State Parliament and came into operation on 5th January 1983. The Act closed the majority of Trust Accounts operated by various authorities and provided for the revenues previously placed to the credit of those accounts to be paid directly into the Consolidated Fund.

The Country Roads Board Fund, which was a Trust Account, was not closed by this legislation. However, its operation was affected, as the Act also amended various other Acts which provided for moneys to be paid into the Country Roads Board Fund by providing that such moneys should be paid into the Consolidated Fund. As a result the Country Roads Board Fund received its revenue by way of Parliamentary appropriation from the Works and Services Account and not from hypothecated sources.



## **Australian Bicentennial Road Development Trust Fund Act 1982**

This Act was passed by the 1982 Autumn Session of the Commonwealth Parliament and came into operation on 20th December 1982.

The purpose of the Act was to establish a Trust Fund for the granting of financial assistance to the States and to the Northern Territory for expenditure on upgrading Australian roads in celebration of the Bicentenary in 1988 and for related purposes.

As part of the establishment of the Trust Fund for granting this financial assistance, the legislation also provided the mechanism by which the necessary revenue to finance these grants would be raised. This was achieved by the introduction of a surcharge on motor spirit and diesel fuel. The surcharge and any income earned by the investment of funds held in the Fund, is paid into the Fund.

Grants to the States are subject to the amount available in the Fund at any one time and are regulated by the Commonwealth as to the type of road on which the grants may be spent (i.e. National Roads, Arterial Roads and Local Roads). Grants are further regulated in so far as they are limited to construction works only and any works proposed on National and Arterial Roads must be the subject of the tender process in accordance with procedures approved by the Commonwealth Minister for Transport and Construction. For some works the Country Roads Board was requested to compete with private contractors through the tender process.

## **Country Roads (Lands) Act 1982**

This Act was passed in the 1982 Spring Session of the State Parliament and came into operation on 21st December 1982. By this Act the Country Roads Act was amended to empower the Country Roads Board to pay compensation to committees of management and the persons having the use of Crown land reserves which are required for road purposes, and for the relocation of assets or facilities on that land, notwithstanding the fact that these lands may only have been occupied or made available under the terms of a licence which could be cancelled at any time.

## **Freedom of Information Act 1982**

This Act was passed in the 1982 Spring Session of the State Parliament and had a commencement date of 5th July 1983. In the interim, the Country Roads Board operated under the Government's Freedom of Information Code.

The object of the Freedom of Information Act is the extension of the right of the community to have access to information in the possession of the Government and other bodies constituted for public purposes.

This is to be achieved through the publication of statements containing information about such bodies, their functions, and the documents they hold, and by conferring upon members of the community a legally enforceable right of access to documents in the possession of the bodies. This right of access is only limited by certain exceptions and exemptions.

To implement the provisions of the Freedom of Information Act, a Freedom of Information Officer has been appointed and a reading room for the use of applicants has been provided.

## **West Gate Bridge Authority (Transfer of Functions) Act 1982**

This Act, which was passed in the 1982 Autumn Session of State Parliament, came into operation on 1st July 1982.

The Act provides for:

- (a) the West Gate Bridge Authority to be abolished as from 1st July 1982;
- (b) the powers and functions formerly exercised by, and the duties and obligations formerly imposed upon the Authority, as from 1st July 1982 to be exercised by and imposed upon the Board;
- (c) the cancellation as from 1st July 1982 of all existing West Gate Bridge Debentures and all existing West Gate Bridge Inscribed Stock and the issue to the holders of such debentures and stock of Country Roads Board Inscribed Stock;
- (d) the Board's borrowing powers to be increased to enable the Board to borrow sums of money not exceeding in all \$400 million;
- (e) the Treasurer to be empowered to make available to the Board from either the Works and Services Account or the Consolidated Fund amounts not exceeding \$132 million;
- (f) the transfer to the Board of the personnel of the Authority; and
- (g) the repeal of the West Gate Bridge Authority Act 1980.



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# Personnel

The following table sets out the Country Roads Board's personnel strength (including West Gate Bridge staff but excluding personnel on secondment or extended leave) as at 30th June 1982 and 30th June 1983.

	As at 30th June 1982	As at 30th June 1983
Engineers	508	528
Administrative Staff	635	663
Technical Staff	492	550
Scientists	23	23
Surveyors	37	37
Other Technological Staff (Qualified)	28	34
Printing and other General Division Staff	19	22
Depot Staff and Employees	746	854
Field Staff and Employees	2109	2215
Total	<u>4597</u>	<u>4926</u>

During the year, the Country Roads Board continued its policy of examining carefully all requests for staff recruitment and staff replacements. The recruitment and replacement of staff only proceeded where this was considered to be essential for operating requirements. Within the limits of this policy, the Country Roads Board during the year recruited 34 newly qualified civil engineers, 26 draftsmen/draftswomen and 23 apprentices. The Country Roads Board was also able to provide 244 school students with work experience under the Work Experience Act 1975, in clerical, technical and field positions.

The Act was introduced by the then State Government in January 1975 to enable students over thirteen years of age to be provided with work experience for up to twelve days in any one school term. The students were paid an amount of \$3 per day which was subsequently reimbursed by the State Education Department.

## Training and Development

During the year the Country Roads Board continued its policy of maintaining a comprehensive in-service training programme for its staff at all levels based on an assessment of training needs. Training courses covered a wide range of technical and administrative subjects including road and bridge design and construction, materials testing, traffic engineering, bituminous surfacing, a variety of computer programming and systems development courses and management training.

During the year officers attended the following external training courses:

- Advanced Course—Australian Administrative Staff College
- Management Development Course—Australian Administrative Staff College
- Summer/Winter School of Business Administration—University of Melbourne
- Construction Project Management Course—University of New South Wales
- Graduate Course in Hydrology—University of New South Wales
- Advanced Computer Courses—IBM
- Government Administrative Course—University of New South Wales.

During the year the Country Roads Board also continued with its Career Development Programme to enable young engineers to gain work experience in three or four different areas of operations over a period of approximately eight years. A study leave scheme designed to assist staff development was also conducted.

The Country Roads Board provided training attachments for engineers from South East Asia and Africa under aid programmes such as the Colombo Plan, Australia Papua New Guinea Education Plan, South Pacific Assistance Plan and the Special Commonwealth African Plan. These training attachments were part of Australia's aid programme and were organised following requests received from the Australian Development Assistance Bureau as part of its aid to developing countries. Training attachments, ranging in duration from a few weeks to six months' duration, were provided for ten engineers from overseas.

## Industrial Relations

During the year a number of developments took place in accordance with the policies of the State Government.

These included:

- the introduction of two joint industry employer-employee working parties—the Metal Industry and State Instrumentalities (Staff) working parties
- the implementation of uniform wage increases in agreements containing “no further claims” provisions
- a policy of negotiating project agreements before commencement of major construction projects. This has involved negotiating an agreement relating to the structure of the West Gate Freeway (South Melbourne Section).

The restructuring of the transport authorities involved extensive consultation with trade unions and staff associations. Some of the Country Roads Board’s personnel were actively involved in the restructuring process in the role of union representatives.

The transfer of the West Gate Bridge Authority to the Country Roads Board on 1st July 1982 necessitated the negotiation of employment conditions for West Gate Bridge personnel. Negotiations on a range of matters took place, particularly with respect to personnel engaged in continuous shift-work. For the first time, the Federated Clerks’ Union represented Country Roads Board’s personnel (Toll Plaza Supervisors and Toll Officers).

The 38-hour week was introduced progressively during the year for approximately 3200 Country Roads Board personnel who formerly worked 40 hours per week. This was the result of an agreement between the Victorian Trades Hall Council and the Government, and covered a number of Government departments and authorities including the Country Roads Board. Following the creation of a new Award in 1981 for metal industry employees of Victorian Government departments and instrumentalities, the Australian Conciliation and Arbitration Commission continued the trend in 1982/83 by making similar awards for transport drivers and plumbers. In addition, a separate provision for Victorian Government employees was made in the Engine Drivers and Firemen’s (General) Award. The Country Roads Board was a respondent party to all of these awards.

The decision to introduce a wages pause for a period of six months was made by a Full Bench of the Australian Conciliation and Arbitration Commission in the National Wage Case of December 1982. This resulted in a stabilisation of wage rates in the Country Roads Board’s employment structure. Claims for increased wages and allowances received from the Building Trades Unions and the Australian Workers’ Union prior to December 1982 had not been settled as at 30th June 1983.

Apart from one-day stoppages by several members of the Builders’ Labourers Federation in December 1982 and May 1983, the Country Roads Board was unaffected by the campaign of building construction industry unions for the 36-hour week.

Other major negotiations conducted during the year included the resolution of a long case before the Australian Conciliation and Arbitration Commission concerning daily travelling and fares allowances for field supervisory personnel and cost clerks represented by the Municipal Officers’ Association and the Association of Draughting, Supervisory and Technical Employees.

Substantial agreement concerning technological change due to the introduction of screen-based equipment was reached following extensive negotiations with staff associations.

Details of the Federal and State awards of major significance to the Country Roads Board and the number of its employees covered by these awards as at 30th June 1983, were as follows:

	No. of Personnel
Australian Workers’ Union Construction and Maintenance Award	1,560
Building Construction Employees and Builders’ Labourers’ Award	93
National Building Trades Construction Award	48
Metal Industry (Victorian Government Departments and Instrumentalities) Award	322
Transport Workers (State Government Departments and Instrumentalities) Award	224
Country Roads Board Salaried Staff Award	1,846
Professional Engineers (Country Roads Board, Victoria) Agreement	510
Professional Engineers (Country Roads Board, Victoria) Senior Engineers Award	39
Canteen Workers Award	40
Storemen and Packers and Sorters Award	53
Total	<u>4,735</u>

The remainder of the Country Roads Board’s personnel were employed under Federal and Victorian State awards, by private agreement, and by an industrial agreement lodged with the Registrar of the Australian Conciliation and Arbitration Commission.

## Apprenticeships

Twenty-three new apprentices were employed during the year in the trades of motor mechanics (12), electrical mechanics (1), structural steel fabrication (welder) (1), landscape gardening (3), lithographic printing (1), painting (2), fitting and turning (1), radio mechanics (1), instrument making and repairing (1).

The total number of apprentices in training at 30th June 1983 was:

Motor Mechanics	51
Structural Steel Fabrication (Welder)	4
Carpentry and Joinery	3
Painting and Decorating	2
Electrical Mechanics	4
Cooking	1
Automotive Electrics	1
Landscape Gardening	3
Gardening	3
Lithographic Printing	2
Instrument Making and Repairing	1
Fitting and Turning	2
Radio Mechanics	1
Total	<u>78</u>

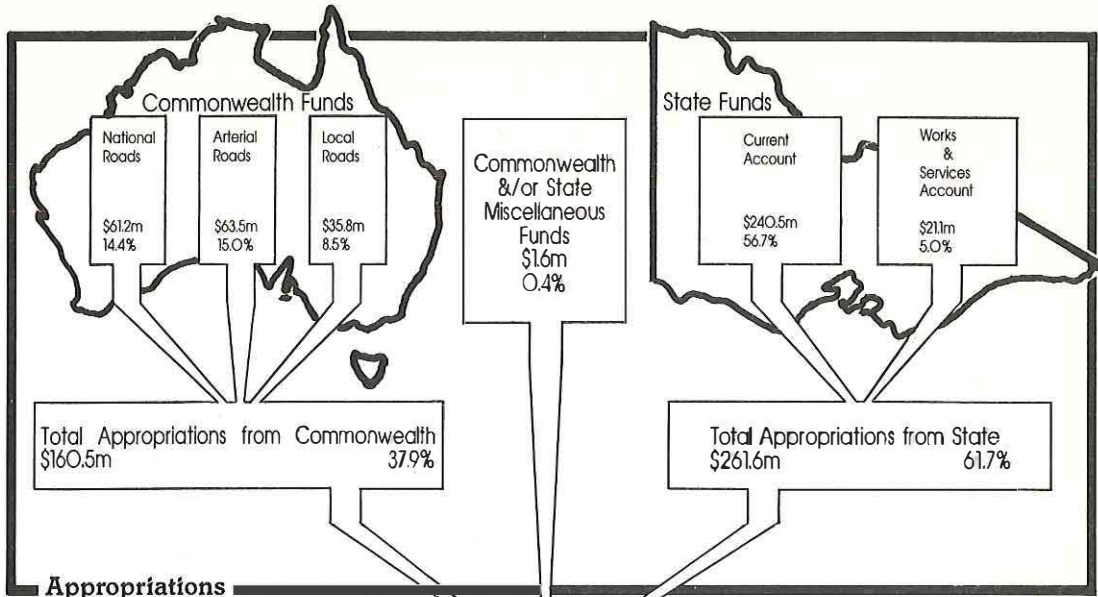
## Retirements

Personnel who retired after substantial service with the Board:

Name	Position	Location	Length of Service (Years)
Brake, W S	Deputy Chairman	Board	34
Bulman, R J C	Chief Accountant	Chief Accountant's Branch	42
Wade, T A	Materials Procurement Officer	Bridge Sub-branch	42
Swift, R S	Engineering Assistant	Mechanical Sub-branch	41
Arkley, R R	Overseer	Bairnsdale	37
Gooch, R F	Assistant Divisional Engineer	Warrnambool	36
Robinson, C F	Assistant Principal Surveyor	Survey	36
Opie, K N	Chief Bridge Engineer	Bridge Sub-branch	35
Quinlan, R L	Clerk of Works	Eastern Projects	35
*Scott, A R	Foreman	Bairnsdale	35
Taylor, D R	Patrolman	Warrnambool	35
Wilson, H A	Patrolman	Benalla	35
Hooper, H I	Rail Tank Car Attendant	Ballarat	34
Smith, E H	Patrolman	Bairnsdale	34
Evans, F C	Patrolman	Geelong	33
Bailey, J W	Foreman	Mechanical Sub-branch	32
Zadra, S	Draftsman	Road Design	32
Fraser, R	Maintenance Worker in Charge	Dandenong	31
Horsfield, T	Experimental Officer	Materials	31
Howlett, R W	Roadmaster	Ballarat	31
Kuradczyk, S	Steam Cleaner	Mechanical Sub-branch	31
*Cannane, A J	Foreman	Warrnambool	30
*Karnatz, J R	Overseer	Benalla	30
Louca, C L	Carpenter	Bridge Sub-branch	30
Newman, J F	Patrolman in Charge	Benalla	30
O'Donahoo, A R	Roadmaster	Bendigo	28
Bowden, T L	Superintendent of Works	Bridge Sub-branch	27
Brennocks, P E	Overseer	Traralgon	27
Taylor, J L	Clerk of Works	Geelong	27
Brown, G McV	Truck Driver	Warrnambool	26
Giesemann, R M	Workshop Supervisor	Bridge Sub-branch	26
Grima, F	Carpenter	Bridge Sub-branch	26
Harper, M	Experimental Officer	Warrnambool	26
Tahiri, X	Machinist	Mechanical Sub-branch	26
Talbot, G T	Overseer	Benalla	26



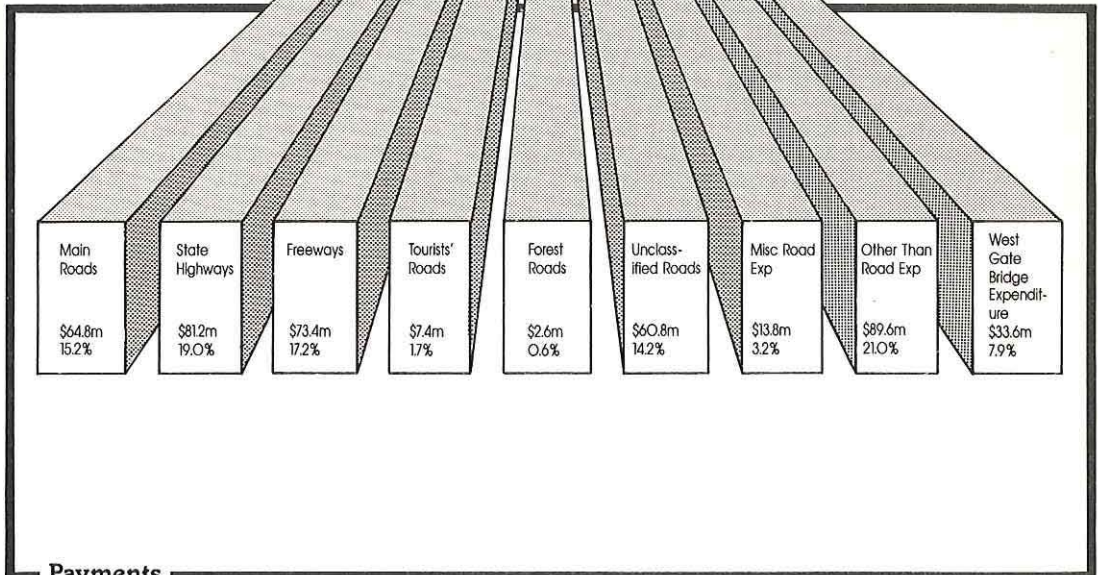
Faulkhead, J W	Overseer	Seymour Project	25
Ireland, W H	Truck Driver	Traralgon	25
Monaghan, W F	Cost Clerk	Ballarat	25
Chanter, R	Overseer	Benalla	24
Ketterer, J D	Overseer	Bendigo	24
McLeod, D F	Permit Officer	Traffic	24
Mayze, J N	Truck Driver	Traralgon	24
O'Brien, P F	Traffic Controller	Benalla	24
Baulch, J	Patrolman	Geelong	23
*Berry, G O	Assistant Overseer	Dandenong	23
*Jewell, E T	Pipelayer	Warrnambool	23
McGrath, F L	Plant Operator	Benalla	23
Murdoch, J E	Traffic Controller	Bendigo	23
Hunt, D N	Tractor Driver	Horsham	22
Jeeves, R F	Cost Clerk	Bairnsdale	22
Liptak, G	Administrative Officer	Mechanical Sub-branch	22
Mackenzie, K	Traffic Controller	Dandenong	22
*Wade, F R	Traffic Controller	Ballarat	22
Wood, K H	Overseer	Horsham	22
Inman, J A	Plant Operator	Dandenong	21
Bugg, O J	Administrative Officer	Chief Road Design Staff	20
Dedlefs, D W	Overseer	Dandenong	20
Deighan, M K	Canteen Manageress	Mechanical Sub-branch	20
Evans, R T	Cost Clerk	Ballarat	20
Foster, R R	Clerk of Works	Bridge Sub-branch	20
Hughan, D S	Overseer	Dandenong	20
Miller, C J	Overseer	Benalla	20
O'Connor, B F	Senior Stenographer	Road Planning	20
Sondheim, D H	Foreman	Mechanical Sub-branch	20
Thomas, J D	Senior Design Engineer	Bridge Sub-branch	20



**Appropriations**  
\$423.7m

Bal Brought Fwd \$49m

\$428.6m  
Funds Available



**Payments**  
\$427.2m

Balance Carried Fwd \$14m

**Appropriations and Payments 1982/83**

## **Appropriations**

To enable the Country Roads Board to carry out its statutory responsibilities, funds were made available by appropriation from the Consolidated Fund and the Works and Services Account.

The main sources of funds available for appropriation were as follows:

### **Funds from State Sources**

- 1 Motor Registration Fees for Motor Vehicles and Trailers
- 2 Examiners' Licence Fees
- 3 Authorised Log Book Fees
- 4 Learner Driver Permit Fees
- 5 Drivers' Licence Testing Fees
- 6 Motor Car Drivers' Licence Fees and Tractor Drivers' Licence Fees
- 7 Motor Driving Instructors' Appointment & Testing Fees
- 8 Motor Driving Instructors' Licence Fees
- 9 Not less than 75% of the amount credited to the Consolidated Fund for Motor Registration Fees collected under Section 7A of the Motor Car Act 1958 and Licence Fees raised under the Business Franchise (Petroleum Products) Act 1979.
- 10 Fines imposed under the provisions of the Country Roads Act 1958
- 11 Loan moneys raised by the issue of inscribed stock
- 12 Special moneys appropriated by Parliament
- 13 Municipal payments on account of main roads
- 14 Amounts received for the sale of surplus land
- 15 West Gate Bridge Toll Fees
- 16 Interest on Investments
- 17 Interest on properties sold on terms
- 18 Income from rented property

### **Funds from Commonwealth Sources**

- 1 Moneys provided under the Commonwealth Roads Grants Amendment Act 1982
- 2 Moneys provided under the Australian Bicentennial Road Development Trust Fund Act 1982

### **Funds from Miscellaneous Sources**

In addition, funds were also made available from Commonwealth and/or State sources to finance particular works via the following trust accounts or appropriations:

- 1 Victorian Natural Disaster Relief Account
- 2 Appropriations from Works and Services Account for Municipalities Forest Roads Improvement Fund
- 3 Country Roads Board Special Works Account



The following table shows the funds available to the Board for the construction and maintenance of roads in 1982/83 compared to 1981/82.

Item	1982/83	1981/82
	\$	\$
<b>Appropriations from State Sources</b>		
Loan Borrowings	8,500,000	1,500,000
Temporary Financial Accommodation	6,800,000	-
Municipal Contributions	3,800,000	3,587,975
Sale of Surplus Land	1,963,000	-
Special Grant West Gate Bridge	10,000,000	124,000
Payment in lieu of Motor Car Act Fees	108,000,000	95,515,042
Payment in lieu of Roads & Special Projects Fund	113,400,000	96,790,110
West Gate Bridge Tolls	8,400,000	Not Available
Interest on Investments	1,476,000	-
General Receipts	3,750,000	3,490,138
Balance brought forward 1 July	4,785,753	296,965
Sub-total	270,874,753	201,304,230
Less Appropriations to other Depts	4,560,000	-
	<u>266,314,753</u>	<u>201,304,230</u>
<b>Appropriations from Commonwealth Sources</b>		
<b>ABRD Trust Fund Act 1982</b>		
National Roads	8,024,356	-
Arterial Roads - Urban	4,632,623	-
- Rural	2,540,710	-
Local Roads	1,157,223	-
<b>Commonwealth Roads Grants Amendment Act 1982</b>		
National Roads	53,168,605	52,868,000
Arterial Roads	56,362,000	52,599,000
Local Roads	34,664,000	32,361,000
Transport Planning & Research (Financial Assistance) Act 1977	-	12,500
Balance brought forward 1 July	-	-
	<u>160,549,517</u>	<u>137,840,500</u>
<b>Funds Available via Miscellaneous Trust Accounts or Appropriations</b>		
Victorian Natural Disasters Relief Account	668,729	6,235,602
Municipalities Forest Roads Improvement	50,000	50,000
Country Roads Board Special Works Account	896,523	669,355
Other Funds	-	119,820
Balance brought forward 1 July	109,937	307,787
	<u>1,725,189</u>	<u>7,382,564</u>
Total funds appropriated for spending by the CRB	<b>428,589,459</b>	<b>346,527,294</b>

## Expenditure

Expenditure in the form of cash payments during the financial year amounted to \$427,217,993 leaving a balance of \$1,371,466 to be carried forward into financial year 1983/84.

The following table shows expenditure by the Country Roads Board in 1982/83 compared to 1981/82.

Item	1982/83	1981/82
	\$	\$
Construction & Maintenance of Roads & Bridges	303,955,277	262,942,653
Capital Expenditure (Plant, Workshops, Offices, etc.)	7,533,782	3,909,652
Planning & Research	4,800,361	4,699,929
Salaries, Operating accounts and other administrative expenditure (including the administrative component of the Traffic Facilities Program)	55,665,654	45,447,249
Statutory Payments (in 1982/83 part of these payments were deducted from the CRB's appropriation)	17,607,000	16,990,508
Interest & Sinking Fund Payments	4,047,601	3,641,613
West Gate Bridge Expenditure	33,608,318	Not Available
Repayment of Overdraft	-	4,000,000
<b>Total</b>	<b>427,217,993</b>	<b>341,631,604</b>

## Sharing the costs of roadworks

The Country Roads Act provided that no more than one-half of the amount expended from loan funds and one-third of the amount expended from the Country Roads Board Fund on main roads during the preceding financial year shall be apportioned between the various municipalities benefited thereby. The Act also provided that the amount apportioned to a council in respect of expenditure charged to the Country Roads Board Fund may be reduced where the cost of maintenance is excessive due either to motor traffic not of local origin or to timber traffic. The revenue, valuation, and rating of the municipality and its financial obligations for loan expenditure on permanent works were taken into account in deciding the level of contribution by a council.

In September 1982 expenditure on the normal program of main roads works in financial year 1981/82 was apportioned in accordance with the Country Roads Act, resulting in the following distribution of expenditure, other than Loan Fund Expenditure:

	\$
• Expenditure from the Country Roads Board Fund	38,734,322
• Expenditure from Commonwealth Funds	13,953,804
<b>Total</b>	<b>52,688,126</b>
• Amount of Country Roads Board Fund expenditure charged to Councils	3,711,785

Within the limit of funds available, the Country Roads Board made allocations to municipal councils for works on unclassified roads. The expenditure incurred from the allocations made by the Country Roads Board in financial year 1982/83, compared with 1981/82 was as follows:

	1982/83		1981/82	
	CRB Contribution		CRB Contribution	
	\$	\$	\$	\$
Patrol Maintenance	3,388,239	1,451,129	3,175,013	1,373,542
Construction, reconstruction and other maintenance	53,199,306	11,859,583	44,920,953	10,592,656
<b>Total</b>	<b>56,587,545</b>	<b>13,310,712</b>	<b>48,095,966</b>	<b>11,966,198</b>

Municipal councils were not required to contribute towards the cost of works involving an expenditure during the year of \$164,557,006 on State Highways, Freeways, Tourists' Roads and Forest Roads and on Australian Bicentennial Road Works on Main and Unclassified Roads to the value of \$2,174,777.

## Appendix 1

<b>Country Roads Board</b>				
<b>Consolidated Statement of Appropriations &amp; Payments for year ended 30 June 1983</b>				
	CRB Fund	Natural Disasters Relief Trust Account	Other Trust Accounts or Appropriations (4)	Total
<b>Appropriations</b>				\$
Opening Balance as at 1 July 1982	4,785,753		109,937	4,895,690
<b>Miscellaneous Funds</b>		668,729	946,523	1,615,252
<b>Works &amp; Services Appropriations</b>				
Australian Bicentennial Road Development Program	16,354,912			
Commonwealth Road Grants	144,194,605			
Loan Borrowings - West Gate Bridge	8,500,000			
Temporary Financial Accommodation - West Gate Bridge	6,800,000			
Municipal Contributions	3,800,000			
Sale of Surplus Land	1,963,000	181,612,517		181,612,517
<b>Vote Transfers</b>				
Special Grant - West Gate Bridge	10,000,000			
Payment in lieu of Motor Car Act Fees	108,000,000			
Payment in lieu of Roads & Special Projects Fund	113,400,000			
West Gate Bridge Tolls	8,400,000			
Investment Income	1,476,000			
General Receipts	3,750,000			
	245,026,000			
Less: Amounts Appropriated to -				
• RoSTA	2,650,000			
• Ministry of Tourism	1,910,000	240,466,000		240,466,000
	\$426,864,270	668,729	1,056,460	428,589,459



<b>Payments</b>						
<b>Road Expenditure</b>						
Main Roads	- Construction and Reconstruction	40,094,826	10,125	1,018,687	41,123,638	
	Maintenance	23,616,257	14,130		23,630,387	64,754,025
State Highways	- Construction and Reconstruction	51,516,578	43,507	50,712Cr	51,509,373	
	Maintenance	29,215,064	436,203		29,651,267	81,160,640
Freeways	- Construction and Reconstruction	65,917,687			65,917,687	
	Maintenance	7,511,827			7,511,827	73,429,514
Tourists' Roads	- Construction and Reconstruction	3,504,108			3,504,108	
	Maintenance	3,813,860		39,311	3,853,171	7,357,279
Forest Roads	- Construction and Reconstruction	1,012,880			1,012,880	
	Maintenance	1,596,693			1,596,693	2,609,573
Unclassified Roads	- Construction and Reconstruction	48,321,211	25,566	12,126	48,358,903	
	Maintenance	11,820,357	139,198	30,318	11,989,873	
	Tram Tracks Reconstruction (MMTB)	487,053			487,053	60,835,829
Murray River Bridges & Punts		520,800				520,800
Rail/Road Bridges Protection		1,469,827				1,469,827
Traffic Line Marking		4,282,943				4,282,943
Traffic Facilities Program - Works Expend.	\$7,534,847	7,534,847				7,534,847
<b>Non Road Expenditure</b>						
Traffic Facilities Program - Man. & Op. Expend	\$3,498,568	3,498,568				3,498,568
	\$11,033,415					
<b>Statutory Payments</b>						
Interest and Sinking Fund - State Loans		3,268,840			3,268,840	
Interest and Loan Repayments - CRB's Loans		743,864			743,864	
Sinking Fund Contribution						
- Country Roads Act 1958 Sec. 31C		10,000			10,000	
Interest on Overdraft		24,897			24,897	
Transport Regulation Fund		17,607,000			17,607,000	21,654,601
West Gate Bridge Expenditure		33,608,318				33,608,318
Planning & Research		4,800,361				4,800,361
<b>Capital Expenditure</b>						
Plant Replacement and Additions		3,998,359			3,998,359	
Buildings, Workshops, etc.		3,535,423			3,535,423	7,533,782
Management & Operating Expenditure		52,160,356		6,730		52,167,086
		\$425,492,804	668,729	1,056,460		427,217,993
<b>Closing Balance Available as at 30 June 1983</b>		\$1,371,466				1,371,466

W F Turner  
Chief Accountant

# Notes to and forming part of the Consolidated Statement of Appropriations & Payments for year ended 30 June 1983

## Explanatory Notes

1 Section 128 of the Country Roads Act states —

"128. The Board shall as soon as practicable after the termination of each year present a report to the Minister setting forth its proceedings, the permanent works constructed, and the roads maintained during such year. The report shall give particulars as to the locality of the works constructed and of the roads maintained and the mileage of such roads and shall contain an account of all moneys received and expended under the provisions of this Act."

In accordance with Section 128 the accounts of the Country Roads Board were maintained on a cash accounting basis throughout financial year 1982/83 and a statement of Appropriations and Payments prepared accordingly.

2 However Section 234 (1) of the Transport Act which was assented to on 23 June 1983 and repealed the Country Roads Act as from 1 July 1983 provided for the preparation of a statement of accounts for the Country Roads Board on an accrued accounting basis. Section 234 (1) states —

"The relevant successor Authority shall as soon as practicable after 1 July 1983 and not later than 1 December 1983 cause to be prepared a statement of accounts in respect of the former Authority for the year ending on 30 June 1983 in a form appropriate to the activities of the former Authority and certified to be correct by the Managing Director and the principal accounting officer (by whatever name called) of the relevant successor Authority and including such information as is necessary to give a true and fair view of the financial transactions and state of affairs of the former Authority."

3 The Statement of Appropriations and Payments is therefore only included in this Activity Report for the purposes of comparison with financial statements prepared in previous years. A statement of accounts based on accrual accounting is in the course of preparation by officers of the RCA and will be made available at a later date.

## Other Notes

4 Other Trust Accounts or Appropriations comprise:

- Country Roads Board Special Works Account
- Appropriations from Works & Services Account for Municipalities Forest Roads Improvement.

5 (a) In accordance with the Public Account (Trust Funds) Act 1982 moneys which were previously paid to the credit of the Country Roads Board Fund were, during 1982/83, paid into the Consolidated Fund and the Works & Services Account. Moneys in lieu of these appropriations were appropriated to the CRB Fund under either the Works and Services Appropriation Act 1982 or the Appropriation (1982-83, No. 1) Act 1982.

(b) As a result of the above legislation, moneys received by the Victorian Government, under the Commonwealth Roads Grants Amendment Act 1982 and the Australian Bicentennial Road Development Trust Fund Act 1982, were appropriated to the CRB Fund. Consequently, such items were shown as part of the CRB Fund and not as separate Trust Accounts.

6 West Gate Bridge Expenditure

The Country Roads Board took over the operations of the West Gate Bridge under the provisions of the West Gate Bridge Authority (Transfer of Functions) Act 1982. The cash transactions relating to the West Gate Bridge are included in the Consolidated Statement of Appropriations and Payments. A separate operating statement and balance sheet have been prepared on an accrual basis.

## Appendix 2

### West Gate Bridge

#### Operating Statement for year ended 30 June 1983

1981/82		\$	\$	\$
\$ 6,750,760	<b>Toll Revenue</b>			8,366,299
	<b>Operating Expenses</b>			
	Administration Division			
2,304,537	Depreciation and amortisation	2,317,109		
210,231	Insurances	165,267		
325,494	Wages and salaries	299,388		
30,726	Superannuation	18,868		
7,595	Audit fees	-		
41,028	Members fees and allowances	-		
91,382	Power and heating	131,114		
269,041	Other	245,204	3,176,950	
	Operations Division			
1,484,695	Wages and salaries	1,731,533		
194,839	Other	207,136	1,938,669	
	Maintenance Division			
305,718	Materials and labour	434,309		
180,046	Wages and salaries	174,032		
93,129	Other	72,983	681,324	
191,161	Technical Services Division		166,974	
102,470	Public Relations & Marketing Division		61,741	
5,832,092	Total operating expenses			6,025,658
918,668	<b>Surplus from operations before finance costs</b>			2,340,641
	<b>Finance Costs</b>			
22,827,121	Interest - inscribed stock	25,017,189		
2,581	other	34,285		
1,741,465	Bills and other finance charges	1,683,334		
24,571,167		26,734,808		
(270,232)	Interest received/receivable	(51,137)	26,683,671	
\$23,382,267	<b>Loss for the period</b>			\$24,343,030



## Appendix 3

### West Gate Bridge

Balance sheet for year ended 30 June 1983

1981/82 \$		\$	\$
	<b>Long Term Liabilities</b>		
216,308,215	Inscribed stock		232,395,877
29,000,000	Advances - Victoria Government		39,000,000
245,308,215			271,395,877
	These loans have been applied towards:		
	<b>Fixed Assets</b>		
194,381,552	West Gate Bridge	192,455,574	
1,970,395	Other	1,688,776	
196,351,947			194,144,350
	<b>Current Assets</b>		
81,959	Maintenance stores - at cost	101,374	
368,250	Prepayments - bill financing charges	463,930	
46,681	- other	47,560	
104,925	Debtors	95,125	
-	Head Office	168,467	
50,776	Cash	62,360	
43,376	Investments - Sinking Fund	443,724	
695,967			1,382,540
197,047,914	<b>Total Assets</b>		195,526,890
	Less		
	<b>Current Liabilities</b>		
10,000,000	Bills of Exchange	13,000,000	
14,112,658	Inscribed stock - principal	5,377,328	
4,019,242	- interest	4,191,299	
299,923	Creditors and accruals	215,473	
30,081	Provision for staff entitlements	30,081	
2,699	Contract retentions	1,654	
261,598	Prepaid toll revenue	382,113	
1,541,154	Bank overdraft	3,800,000	
-	Sinking Fund Reserve	3,751	
30,267,355			27,001,699
166,780,559	<b>Total Assets less Current Liabilities</b>		168,525,191
	Add		
	<b>Accumulated Deficit</b>		
55,145,389	Accumulated loss at 30 June 1982	78,527,656	
23,382,267	<b>Loss for the period</b>	24,343,030	102,870,686
\$245,308,215			\$271,395,877

### Notes to and forming part of the West Gate Bridge Accounts for the year ended 30 June 1983

#### 1 Significant Accounting Policies

The basis of accounting and the accounting policies adopted in the preparation of the accounts are set out below:

##### (a) Basis of accounting

The accounts have been prepared in accordance with generally accepted accounting principles which incorporate the accrual, going concern and historical cost conventions.

##### (b) Toll revenue

Toll revenue is brought to account as the facility is used. Toll vouchers sold, but not yet surrendered, are reflected as prepaid toll revenue.

(c) **Depreciation**

Depreciation is calculated on a straight line basis so as to write off the net cost of each fixed asset during its expected useful life. The principal annual rates in use are:

Bridge, ancillary facilities and administration building	1%
Traffic surveillance control, toll collection and air conditioning equipment	15%
Motor vehicles	5%
Maintenance equipment	20%
Office furniture and fittings	7½%

(d) **Bill financing charges**

Charges in respect of bills discounted are accounted for on a time basis in accordance with the period of the bills.

(e) **Provision for staff entitlement**

The amount expected to be paid to employees for their pro rata entitlement to long service and annual leave are accrued annually at current pay rates having regard to experience of employee departures and periods of service.

**2 Fixed Assets**

(a) **West Gate Bridge**

Comprising bridge across the River Yarra including all road works, toll gates, permanent works and buildings ancillary to the construction, operations or use of the bridge.

Book value at 30 June 1983

Bridge	196,537,413
Buildings	877,230
	197,414,643
Accumulated Depreciation	4,959,069
	\$192,455,574

(b) **Other assets**

	Cost	Accumulated Depreciation	Book Value 30 June 1983
Traffic surveillance, control and toll collection equipment	1,852,525	730,174	1,122,351
Motor vehicles	154,731	18,376	136,355
Maintenance equipment	295,941	53,043	242,898
Old furniture and equipment	267,603	80,431	187,172
	\$2,570,800	\$882,024	\$1,688,776

**3 Inscribed Stock**

The total value of inscribed stock on issue as at 30 June 1983 is as follows:

Due for Repayment	\$
During year ended 30 June 1984	5,377,328
Later than 30 June 1984	232,395,877
Total	\$237,773,205

In terms of the provisions of the Country Roads Act 1958 as amended by the West Gate Bridge Authority (Transfer of Functions) Act 1982:

- The inscribed stock with interest thereon is charged and secured upon the revenues of the Board.
- The due repayment of the principal sums and the payment of interest secured by the inscribed stock is guaranteed by the Government of Victoria.

**4 Advances Victoria Government**

The advances are unsecured and subject to repayment on one month's notice. The Government does not propose any charge for interest during an initial period of five years ending 30 June 1985.

## Appendix 4

### Motor registrations

Registrations under the Motor Car Act during 1982/83 totalled 2,731,607 an increase of 5.45% over the total previous year.

Vehicle	1981/82	1982/83	Increase
<b>Private</b>			
New	136,679	126,811	
Secondhand:			
Re-registered	67,632	67,494	
Renewed	<u>1,691,829</u>	<u>1,813,550</u>	
	1,896,140	2,007,855	111,715
<b>Commercial &amp; Hire</b>			
New	18,603	14,441	
Secondhand:			
Re-registered	5,791	5,161	
Renewed	<u>149,801</u>	<u>156,221</u>	
	174,195	175,823	1,628
<b>Primary Producers' Trucks &amp; Tractors</b>			
New	5,600	3,775	
Secondhand:			
Re-registered	4,735	3,202	
Renewed	<u>89,404</u>	<u>95,051</u>	
	99,739*	102,028†	2,289
<b>Trailers</b>	343,923	357,356	13,433
<b>Motor Cycles</b>	75,457	87,554	12,097
<b>Licences under the Motor Omnibus Act</b>	917	991	74
<b>Totals</b>	2,590,371	2,731,607	141,236

\*Includes 49,048 no-fee tractors

†Includes 49,782 no-fee tractors

## Appendix 5

### Loan Liability to the Government of Victoria as at 30 June 1983

	Main Roads etc.	Developmental Roads	Total
<b>Permanent Works</b>	\$	\$	\$
Main Roads	16,730,322.16		16,730,322.16
State Highways	19,604,304.20		19,604,304.20
Freeways	3,000,000.00		3,000,000.00
Tourists' Roads	227,316.44		227,316.44
Forest Roads	2,167.89		2,167.89
Unclassified Roads	900,000.00		900,000.00
Developmental Roads		12,851,515.09	12,851,515.09
Discount and Expenses	847,887.35	593,556.40	1,441,443.75
<b>Total Amount Borrowed</b>	41,311,998.04	13,445,071.49	54,757,069.53
<b>Less Redemption of Loans</b>			
Redemption Funds	170,438.11	1,292,772.73	1,463,210.84
Main Roads Sinking Fund	571,376.76		571,376.76
Developmental Roads Sinking Fund		110,166.02	110,166.02
State Loans Repayment Fund	3,957,418.51		3,957,418.51
National Debt Sinking Fund	12,556,828.27	11,059,837.38	23,616,665.65
Consolidated Fund	133,951.62		133,951.62
	\$17,390,013.27	12,462,776.13	29,852,789.40
<b>Loan Liability at 30 June 1983</b>	<b>\$23,921,984.77</b>	<b>982,295.36</b>	<b>24,904,280.13</b>



## Appendix 6

### Loans Raised by the Country Roads Board under Authority of Country Roads Act 1958 Sec 31A (Borrowing Powers) (Excluding loans raised to finance West Gate Bridge operations)

Loan No.	Lender	Type of Loan	Interest Rate	Date Raised	Maturity Date	Amount of Loan \$	Amount Redeemed	Loan Liability as at 30 June 1983	
1.	State Insurance Office	Inscribed Stock	9.5%	30 Mar 79	30 Mar 89	500,000.00		500,000.00	
3.	State Insurance Office	" "	10.8%	31 Jan 80	31 Jan 90	500,000.00		500,000.00	
5.	The National Bank Savings Bank Limited	" "	9.3%	15 Jun 79	15 Jun 94	500,000.00	75,345.91	424,654.09	
6.	The National Bank Savings Bank Limited	" "	12.6%	13 Jun 80	13 Jun 90	700,000.00	129,486.98	570,513.02	
7.	State Insurance Office	" "	13%	28 Feb 81	28 Feb 88	500,000.00		500,000.00	
8.	The National Bank of Australasia Limited	" "	13.9%	30 Apr 81	30 Apr 91	700,000.00	76,170.70	623,829.30	
9.	State Insurance Office	" "	15.8%	30 Nov 81	30 Nov 88	500,000.00		500,000.00	
10.	The National Bank Savings Bank Limited	" "	16.0%	15 Jun 82	15 Jun 97	700,000.00	70,000.00	630,000.00	
						<b>Total</b>	<b>4,600,000.00</b>	<b>351,003.59</b>	<b>4,248,996.41</b>

### Sinking Fund Contribution - Country Roads Act 1958 Sec 31C

Invested with	Type of Investment	Interest Rate	Date Invested	Maturity Date	Amount \$
State Electricity Commission of Victoria	Inscribed Stock	10.5%	1 Dec 79	1 Dec 89	5,000.00
State Electricity Commission of Victoria	" "	10.9%	1 Mar 80	1 Mar 90	2,500.00
State Electricity Commission of Victoria	" "	15.7%	1 Dec 81	1 Dec 91	16,500.00
State Electricity Commission of Victoria	" "	15.7%	1 Mar 82	1 Mar 92	2,500.00
State Electricity Commission of Victoria	" "	17.2%	1 Sep 82	1 Sep 92	12,000.00

## Appendix 7

### Loan Liability on loans raised in connection with West Gate Bridge (Country Roads Act 1958 Section 3)

(i) Inscribed Stock - Section 31B	\$ 237,773,205
(ii) Overdraft on Current Account - Section 31G	3,800,000
(iii) Commercial Bills - Section 31H	13,000,000
<b>Total</b>	<b>254,573,205</b>

### Sinking Fund Contribution (Country Roads Act 1958 Section 31C)

Invested with	Type of Investment	Interest Rate	Yield	Maturity Date	Face Value \$	Purchase Price \$
State Electricity Commission of Victoria	Inscribed Stock	10.4%	14.2%	1 Dec 83	300,000	297,651
State Electricity Commission of Victoria	" "	10.4%	13.9%	1 Sep 83	100,000	102,697
State Electricity Commission of Victoria	" "	15.5%	16.75%	1 Mar 86	48,000	43,376

## Appendix 8

### Lengths of State highways, freeways, tourists' roads and forest roads

State highways - declared as at 30.6.83

Name	Route	Length (kilometres)
Bass	Lang Lang-Inverloch	60.1
Bellarine	Geelong-Queenscliff	31.6
Bonang	Orbost-NSW border near Delegate	114.2
Borong	Dimboola-Charlton	123.3
Burwood	Burwood-Ferntree Gully	20.4
Calder*	Melbourne-Mildura	554.6
Calder Alternative	Ravenswood-Marong	20.1
Cann Valley	Cann River-NSW border	44.9
Eastern*	Nicholson Street-Gold Street	1.2
Glenelg	Ballarat-SA border near Mt Gambier	285.1
Goulburn Valley	Eildon-NSW border near Tocumwal	238.7
Hamilton	Geelong-Hamilton	231.0
Henty	Portland-Iascelles	332.7
Hume*	Melbourne-NSW border near Albury	179.8
Kiewa Valley	Bandiana-Mt Beauty	78.5
Loddon Valley	Bendigo-Kerang	123.7
Maroondah	Melbourne-Mansfield	184.6
Maroondah Link	Cathkin-Yarck	4.4
Mclvor	Heathcote-Bendigo	44.1
Melba	Coldstream-Yea	65.2
Midland*	Geelong-Mansfield	415.1
	Morwell-Port Welshpool	79.2
Midland Link	Maindample-Barjarg	8.9
Murray Valley	Corryong-Hattah	736.5
Nepean	Melbourne-Portsea	90.5
Northern	Kilmore-Echuca	161.9
Omeo	Bairnsdale-Tallangatta	282.5
Ouyen	Ouyen-SA border near Pinnaroo	130.7
Ovens	Wangaratta-Bright	76.2
Princes (East)*	Melbourne-NSW border near Genoa	480.9
Princes (West)*	Melbourne-SA border near Mt Gambier	400.5
Pyrenees	Elphinstone-Ararat	147.1
Robinvale	Lake Powell-Robinvale	17.7
South Gippsland*	Dandenong-Yarram-Sale	254.0
Sturt	Mildura-SA border near Renmark	113.6
Sunraysia	Ballarat-Calder Highway	340.0
Unnamed	Edithvale-Coburg	49.7
Warburton	Lilydale-Warburton	34.6
Western*	Melbourne-Serviceton	360.9
Wimmera	Apsley-St Arnaud	222.7

\*Lengths quoted do not include freeway sections

Freeways - as at 30.6.83

Name	Section	Length (kilometres)
Calder	Keilor	8.1
	Elphinstone	2.8
Eastern	Gold Street to Doncaster Road	11.7
Frankston	Armstrongs Road to Beach Street	5.8
Hume	Craigieburn to Kalkallo	8.3
	Beveridge to Avenel	91.2
	Violet Town-Baddaginnie	20.7
	Chiltern	21.3
Midland	Yinnar	9.6
Mornington Peninsula	Springvale to Armstrongs Road	8.1
	Dromana to Rosebud	8.4
Princes	Mulgrave	19.5
	Drouin, Moe and Haunted Hills	23.0
	Orbost	5.9
	Laverton to Lara	49.0
	Dartmoor	3.0

South Eastern	Anderson Street to Tooronga Road	6.8
South Gippsland	Princes Freeway to South Gippsland Highway	5.6
	Whitelaw	3.8
Tullamarine	Flemington Bridge to Melbourne Airport	20.9
West Gate	Bertie Street to Graham Street	.3
	Williamstown Road to Princes Freeway	5.4
Western	Deer Park to Melton	13.3
	Bacchus Marsh to Bungaree	52.8

#### **Tourists' roads – declared as at 30.6.83**

<b>Name</b>	<b>Municipalities</b>	<b>Length (kilometres)</b>
Acheron Way	Healesville and Upper Yarra Shires	35.4
Alpine	Bright and Omeo Shires	83.0
Arthur's Seat	Flinders Shire	8.1
Bogong High Plains	Bright and Omeo Shires	66.7
Cameron Drive	Gisborne and Newham and Woodend Shires	4.3
Donna Buang	Healesville and Upper Yarra Shires	34.0
Gipsy Point	Orbost Shire	2.4
Grampians	Ararat, Dundas and Stawell Shires and Stawell Town	69.5
Great Ocean	Barrabool, Winchelsea, Otway, Heytesbury and Warrnambool Shires	208.0
Mallacoota	Orbost Shire	22.5
Mount Abrupt	Ararat and Mount Rouse Shires	24.8
Mount Buffalo	Bright Shire	39.0
Mount Buller	Mansfield Shire	27.0
Mount Dandenong	Sherbrooke and Lillydale Shires	21.8
Mount Victory	Arapiles, Stawell and Wimmera Shires	30.7
Marysville-Woods Point	Healesville Shire	18.9
Otway Lighthouse	Otway Shire	12.9
Phillip Island	Bass and Phillip Island Shires	23.4
Silverband	Stawell Shire	9.1
Sydenham Inlet	Orbost Shire	21.6
Wartook	Wimmera Shire	3.5
Wilson's Promontory	South Gippsland Shire	31.0

#### **Forest roads – declared as at 30.6.83**

<b>Name</b>	<b>Municipalities</b>	<b>Length (kilometres)</b>
Bairnsdale-Dargo	Avon and Bairnsdale Shires	20.8
Bealiba-Moliagul	Bet Bet Shire	9.0
Beech Forest-Mt Sabine	Otway Shire	12.6
Benambra-Corryong	Omeo, Tallangatta and Upper Murray Shires	76.5
Benambra-Limestone	Omeo Shire	14.3
Bendoc-Orbost	Orbost Shire	20.9
Brookville	Omeo Shire	15.9
Bruthen-Buchan	Tambo Shire	36.5
Bullumwaal-Tabberabbera	Bairnsdale Shire	30.3
Carrajung-Woodside	Alberton Shire	17.7
Dargo	Avon Shire	74.8
Deans Marsh-Lorne	Winchelsea Shire	22.9
Drummond-Vaughan	Daylesford and Glenlyon and Newstead Shires	20.9
Epsom-Fosterville	Huntly Shire	20.4
Forrest-Apollo Bay	Otway Shire	19.7
Greendale-Trentham	Ballan and Kyneton Shires	23.8
Heyfield-Jamieson	Mansfield and Maffra Shires	145.5
Inglewood-Rheola	Korong Shire	17.3
Kimbolton	Strathfieldsaye Shire	13.5
Lavers Hill-Cobden	Heytesbury and Otway Shires	42.7
Meredith-Steiglitz-Maude	Bannockburn Shire	20.7
Murrungower	Orbost Shire	21.3
Portland-Nelson	Portland Shire	38.6
Red Knob	Tambo Shire	7.2
Tatong-Tolmie	Benalla Shire	36.3
Timbarra	Tambo Shire	19.5
Walhalla	Narracan, Mansfield and Upper Yarra Shires	110.7
Warburton-Woods Point	Healesville, Upper Yarra and Mansfield Shires	103.4



