

## CHAPTER XVIII.

### LOCAL GOVERNMENT.

#### § 1. Introduction.

1. *Local Government Authorities.*—In each State of the Commonwealth there exists a system of local government whose powers and responsibilities are in general similar, and cover such matters as the upkeep and construction of roads, streets and bridges, water, sewerage and drainage systems and health and sanitary services, the supervision of building and the administration of regulations relating to items such as weights and measures, slaughtering, the registration of dogs, etc. In addition to these obligatory functions there are also a large number which may be performed by a local government authority either with or without the consent of the ratepayers or the Governor-in-Council. These include transport facilities, electricity, gas and other business undertakings, hospitals, charitable institutions, recreation grounds, parks, baths, libraries, museums, etc.

The system is based on the principle of a grant of specific powers by the State legislatures to the local authorities, their autonomy, however, being more or less limited by the provision for general supervision by a department of the central government or by the Governor-in-Council. Otherwise, within the scope of the Acts under which they are constituted or which they have to administer, they are responsible only to the ratepayers.

While the broad pattern of local government throughout the States of Australia is similar, the range of activities, election of officers, methods of valuation and rating powers, etc., differ considerably.

The areas over which local government bodies exercise general control, numbering 914, are known in New South Wales as cities, municipalities and shires; in Victoria as cities, towns, boroughs and shires; in Queensland as cities, towns and shires; in South Australia as corporate towns and district council areas; in Western Australia as municipalities and road districts; and in Tasmania as municipalities. In New South Wales some local government authorities in an area have combined to provide services such as electricity, water, sewerage and drainage—e.g., the county councils. Within shires there are also some municipal units known as urban areas. In Western Australia there are local health boards, whose personnel in most cases coincide with those of municipalities and road boards. Apart from the more thinly populated parts of New South Wales and South Australia and the Commonwealth Territories, practically the whole of Australia comes within local government jurisdiction.

The financial statistics in § 2 following are classified under the headings of *Ordinary Services* and *Business Undertakings*. The former covers the obligatory and general functions referred to above. Business Undertakings include public utilities such as water supply, sewerage, electricity, gas, transport and hydraulic power undertakings, and other miscellaneous works such as abattoirs, quarries, ice works, cinemas, etc.

2. **Semi-Governmental Authorities.**—In addition to local government authorities, a large number of authorities have been set up to control specific activities, which are often identical with some of those performed by either, or both, of the other classes of public authority—central government and local government—and a complete picture of any field of activity for a State or Australia as a whole cannot be obtained without reference to each class operating in that particular field. These semi-governmental authorities differ primarily from local government authorities in that their operations are restricted to the specific activity for which they were constituted—e.g. roads and bridges, or water and sewerage, or electricity and irrigation, or harbours, or tramways, etc.—i.e. each dispenses a specific service throughout an area as distinct from the general services of the local authority.

Sections 4 to 7 following, dealing with roads and bridges, water supply and sewerage, harbours and fire brigades, include particulars of the more important of these authorities which operate within the range covered by this chapter.

3. **Roads, Bridges, etc.**—The construction and maintenance of roads, bridges and ferries are generally part of the functions of local authorities, but in each State there exists a central road authority or a Government department whose duties relate to the construction and maintenance of “main” and “developmental” roads, the distribution of funds to local bodies, and the supervision and co-ordination of road construction and policy throughout the State. Although roads and bridges constructed and maintained directly by the Government or by the central road authority do not properly come under the heading of “Local Government”, they have been included in this chapter for the sake of convenience. Owing to difficulty in obtaining complete particulars of receipts and expenditure by the various local governing bodies in regard to roads under their control, the details of receipts and expenditure given in § 4 are those of the Government only, relating either to the supervisory board or commission in the State or to direct activities of a department. In § 2 some information is given of the revenue and expenditure of local government authorities in respect of roads.

4. **Water Supply and Sewerage.**—In the cities of Sydney and Melbourne the control of water supply and sewerage is in the hands of special Boards, while in Adelaide and Perth these services are under the direct supervision of Government departments. In most of the other cities and towns, the municipal councils, or, in some cases, water trusts, are the controlling bodies which either construct the works out of their own resources or take them over after they have been constructed by the Government.

5. **Harbours.**—The majority of the harbours in Australia are managed by Boards, the members of which are either elected by persons interested, or are appointed by the Government. In a few instances, however, they are directly controlled by the Government.

6. **Fire Brigades.**—In all the States, the management of fire brigades is undertaken by Boards. These Boards usually comprise members elected by the councils of municipalities and insurance companies within the districts placed under their jurisdiction. and one or more members appointed by the Government. Occasionally volunteer or country fire brigades are represented.

7. **Other Local or Semi-Governmental Activity.**—The activities referred to above are not the only forms of local or semi-governmental undertakings. There are others, the most important being tramways and omnibus services and electricity and gas undertakings, which are not dealt with in this chapter, except to the extent that they are represented in the finances as shown in the following section. Chapter VII.—Transport and Communication contains information on municipal transport services, and Chapter X.—Electric Power Generation and Distribution deals with the various types of electricity undertakings in each State. In addition, particulars of municipal electricity and gas undertakings, although not shown separately, are included in the relevant sections in Chapter IX.—Manufacturing Industry.

## § 2. Local Government Authorities.

1. **New South Wales.**—For purposes of local government the whole of the Eastern and Central land divisions and a small portion of the sparsely populated Western division have been divided into cities, municipalities (most principal towns) and shires (mainly large rural areas, some of which embrace important towns). At the end of 1952 the area incorporated was 18,400 square miles, or nearly three-fifths of the total area of the State.

All local government authorities in the State are subject to the general provisions of the Local Government Act.

Municipalities and shires may combine to form county councils for the establishment and conduct of services of joint benefit, e.g., electricity, water, sewerage. There were 33 county councils and the Grafton and South Grafton Water Board at 31st December, 1952.

2. **Victoria.**—Local government is established throughout the State, the various divisions being termed cities, towns, boroughs or shires. The only unincorporated areas are French Island (42,000 acres) in Westernport Bay, Julia Percy Island (650 acres), off Port Fairy, and Tower Hill (1,350 acres), adjacent to the Borough of Koroit. Melbourne and Geelong were incorporated under special statutes prior to the establishment of a general system of local government, but are now subject to several provisions of the Local Government Act. The law relating to local government was consolidated by the Local Government Act 1946.

3. **Queensland.**—The whole of the State (except certain islands along the coast, the Dawson Valley Irrigation Area and the Somerset Dam Area) is incorporated into cities, towns and shires under the Local Authorities Act 1902 and its amendments. In June, 1949, the State Government rearranged the boundaries of the local authorities to the south of Brisbane, reducing their number by ten. The towns of Coolangatta and Southport were absorbed by the new town of South Coast; two new shires were created and eleven were abolished, being absorbed by the new shires and existing cities, towns and shires.

4. **South Australia.**—The settled portion of South Australia is incorporated, being mostly under municipal corporations in the larger cities and towns, and district councils in the agricultural areas.

5. **Western Australia.**—In this State, local government is carried on by means of municipalities and district road boards. Certain functions are delegated to health boards, whose personnel, in most cases, coincide with those of the municipalities and district road boards.

6. **Tasmania.**—The whole State is divided into municipal districts, Hobart and Launceston being incorporated under separate Acts.

7. **Area, Population, Dwellings and Value of Ratable Property.**—The area, population, dwellings and value of ratable property in the incorporated areas of each State are shown in the table below. The valuations relate to ratable property only and exclude Government and other non-ratable property, whose value in the aggregate is considerable. In this table, particulars of dwellings are in accordance with the definition used in the 1954 Census, and are the results of information collected on the Census Schedules. For the purpose of the Census, a dwelling was defined as any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building. The term has, therefore, a very wide meaning and includes, in addition to houses and flats, a great variety of dwellings ranging from a single-roomed shack to a multi-roomed hotel or institution. Unoccupied dwellings include "week-end" and holiday dwellings and other dwellings temporarily unoccupied on the night of the Census. Dwellings being built are not included.

LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS AND  
VALUE OF RATABLE PROPERTY, 1952-53.(a)

Local Bodies.	Number.	Area. '000 Acres.	Popula- tion. (a) '000.	Dwellings.(a)		Value of Ratable Property.		
				Occu- pied.	Unoccu- pied.	Unim- proved Capital Value.	Im- proved Capital Value.	Annual Value.
				No.	No.	£'000.	£'000.	£'000.

NEW SOUTH WALES.(b)

Metropolitan—								
Capital City ..	1	7	193	52,767	1,099	71,603	240,507	12,663
Other ..	34	702	1,696	470,690	13,464	210,123	759,633	46,948
Outside Metropolitan Area	207	117,110	1,510	385,568	28,126	285,401	(c)	(c)
Total ..	242	117,819	3,399	909,025	42,691	567,127	(c)	(c)

VICTORIA.(d)

Metropolitan—								
Capital City ..	1	8	93	22,348	455	(c)	148,433	7,422
Other ..	33	328	1,329	371,340	6,316	(c)	653,645	33,050
Outside Metropolitan Area	166	55,857	1,022	267,089	20,713	(c)	560,560	28,564
Total ..	200	56,193	2,444	660,777	27,484	(c)	1,371,047	69,036

QUEENSLAND.(f)

Capital City ..	1	246	502	133,064	3,948	62,372	(c)	(c)
Outside Metropolitan Area	133	428,178	809	205,598	17,436	80,506	(c)	(c)
Total ..	134	428,424	1,311	338,662	21,384	142,878	(c)	(c)

SOUTH AUSTRALIA.(f)

Metropolitan—								
Capital City ..	1	4	30	7,454	211	12,084	49,000	2,441
Other ..	20	99	454	126,669	2,737	(c)	156,000	7,808
Outside Metropolitan Area	122	34,433	298	78,474	5,399	(c)	169,000	8,427
Total ..	143	34,536	782	212,597	8,347	(c)	374,000	18,676

WESTERN AUSTRALIA.(g)

Metropolitan—								
Capital City ..	1	14	97	25,460	577	(c)	51,450	2,659
Other ..	19	107	257	65,281	1,262	(c)	(c)	1,016
Outside Metropolitan Area	126	624,467	284	72,082	4,775	(c)	(c)	1,274
Total ..	146	624,588	638	162,223	6,614	(c)	(c)	4,949

TASMANIA.(f)

Metropolitan—								
Capital City ..	1	18	55	14,624	375	6,761	23,010	1,428
Other ..	2	99	38	9,333	531	3,407	14,973	799
Outside Metropolitan Area	46	16,661	215	54,905	4,382	24,798	74,473	4,187
Total ..	49	16,778	308	78,862	5,288	34,966	112,456	6,414

(a) Particulars of population and dwellings are as at Census 30th June, 1954. (b) Year ended 31st December, 1952. (c) Not available. (d) Year ended 30th September, 1953. (e) Excludes Yallourn area under the jurisdiction of the State Electricity Commission. (f) Year ended 30th June, 1953. (g) Municipalities—Year ended 31st October, 1953; Road Districts—Year ended 30th June, 1953.

8. Finances.—(i) General. The following tables show the latest available financial statistics for local government authorities. The figures relate to the years 1952-53 and 1953-54, except for New South Wales, where they relate to the years 1952 and 1953.

(ii) *Ordinary Services.* In the returns of revenue and expenditure for 1952-53 in the following table, the proceeds from loans and expenditure thereof have been excluded. The financial operations of business undertakings controlled by the various local government authorities are given in the next paragraph. The profits resulting from the working of these undertakings, where taken into general revenue, have been included.

### LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE, 1952-53.

Particulars.	N.S.W. (a)	Vic. (b)	Q'land. (c)	S. Aust. (c)	W. Aust. (d)	Tas. (e)	Total.
Number of Local Government Authorities ..	242	200	134	143	146	49	914

#### REVENUE (EXCLUDING LOAN RECEIPTS). (£.)

Taxation—							
Rates (net) ..	18,427,749	11,276,281	8,465,957	7,880,162	{ 1,910,633	1,119,677	44,202,817
Penalties ..	89,507	32,148					
Licences ..	349,462	67,054					
Total ..	18,866,718	11,375,483	8,516,033	7,921,727	1,951,408	1,130,886	44,785,256
Public Works and Services—							
Sanitary and Garbage Services ..	2,255,275	816,388	1,427,209	58,840	355,440	75,294	4,983,446
Council Properties ..	1,585,810	1,730,949	538,313	243,028	602,029	190,975	4,891,104
Street Construction ..	907,060	617,665	211,331	631,613	158,533	30,320	2,241,022
Other ..	1,211,232	212,183	64,491	88,740	21,938	20,188	1,668,772
Total ..	5,959,377	3,408,185	2,241,344	706,221	1,137,940	325,777	13,775,844
Government Grants—							
Roads ..	4,947,833	130,784	1,594,507	1,116,998	824,096	166,848	8,781,076
Other ..	976,656	331,389	(f) 843,533	35,910	33,290	23,783	2,246,905
Total ..	5,924,489	465,173	2,438,040	1,152,908	857,395	189,916	11,027,981
Profits from Business Undertakings ..	..	218,949	2,651	..	19,708	..	241,308
Fees and Fines ..	..	41,176	..	71,656	844,296	..	2,099,772
All Other ..	..	131,796	598,240	82,159	177,100	153,349	2,099,772
Total Revenue ..	30,750,584	15,640,763	13,816,308	4,937,701	4,987,847	1,799,958	71,933,161

#### EXPENDITURE (EXCLUDING LOAN EXPENDITURE). (£.)

General Administration ..	2,019,104	1,708,071	1,105,344	473,100	502,978	209,959	6,699,219
Debt Services (excluding Business Undertakings)—							
Interest ..	874,918	528,618	940,127	34,456	113,322	49,834	2,541,279
Redemption ..	2,062,204	759,890	1,427,003	310,444	262,430	106,986	4,928,958
Exchange ..	21,566	..	175,372	..	..	..	196,932
Other ..	..	6,473	8,370	..	..	251	15,197
Total ..	2,958,688	1,295,651	2,550,872	344,900	375,752	157,078	7,682,366
Public Works and Services—							
Roads, Streets and Bridges ..	13,999,720	5,257,097	5,044,833	2,970,981	1,752,342	746,544	29,771,529
Health Administration ..	578,819	645,515	214,840	104,548	146,569	42,181	1,732,472
Sanitary and Garbage Services ..	2,858,165	1,416,011	1,212,502	296,801	426,890	82,839	6,293,208
Street Lighting ..	758,800	361,167	200,250	115,750	72,139	41,343	1,552,458
Council Properties ..	4,026,221	2,995,861	1,131,058	455,915	1,207,454	237,146	10,048,655
Other ..	970,811	118,161	1,001,660	71,620	36,086	20,773	2,321,047
Total ..	23,192,577	11,797,115	8,807,752	4,015,618	3,636,486	1,179,827	51,710,369
Grants—							
Fire Brigades ..	201,811	283,547	152,912	73,721	57,349	30,481	799,824
Hospitals and Ambulances ..	..	..	..	..	..	..	..
Other Charities ..	81,725	59,331	1,666	108,497	3,522	2,223	1,625,407
Other ..	(h) 117,677	(i) 72,104	180,112	10,043	8,307	7,238	..
Total ..	704,162	1,057,242	347,011	197,655	69,178	39,942	2,125,231
All Other ..	700,837	80,336	180,514	463	118,660	193,812	1,702,561
Total Expenditure ..	29,605,365	15,457,185	13,150,493	5,031,698	4,793,057	1,780,648	69,818,746

(a) Figures for New South Wales relate to the year ended 31st December, 1952, and are on an income and expenditure basis as distinct from those of other States, which are on a cash basis. (b) Year ended 30th September, 1953. (c) Year ended 30th June, 1953. (d) Municipalities—Year ended 31st October, 1953; Road Districts—Year ended 30th June, 1953. (e) Includes £50,778 reimbursement from Highways Department for work done. (f) Includes £363,319 for sewerage and drainage. (g) Includes £138,146 for sewerage, mosquito control and drainage. (h) To Main Roads Department. (i) Includes £336,773 to Country Roads Board.

The following table shows the revenue and expenditure (excluding loan) of local government authority ordinary services for the years 1938-39 and 1948-49 to 1952-53:—

**LOCAL GOVERNMENT AUTHORITIES : ORDINARY SERVICES—REVENUE AND EXPENDITURE.**  
(£.)

Year.	N.S.W.(a)	Victoria.(b)	Q'land.(c)	S. Aust.(c)	W. Aust.(d)	Tas.(c)	Total.
<b>REVENUE (EXCLUDING LOAN RECEIPTS).</b>							
1938-39 ..	10,657,409	6,070,551	4,177,632	1,578,688	1,447,154	518,755	24,450,189
1948-49 ..	13,524,992	8,190,347	7,035,155	2,526,530	2,436,790	895,920	34,009,734
1949-50 ..	16,293,311	9,454,755	8,291,960	2,917,606	2,858,147	1,050,939	40,866,718
1950-51 ..	18,591,800	11,044,520	10,182,127	3,460,747	3,581,714	1,214,430	48,075,338
1951-52 ..	24,169,405	13,503,694	12,471,901	4,390,093	4,158,300	1,590,395	60,283,788
1952-53 ..	30,750,584	15,640,763	13,816,308	4,937,701	4,987,847	1,799,958	71,933,161
<b>EXPENDITURE (EXCLUDING LOAN EXPENDITURE).</b>							
1938-39 ..	10,790,273	6,192,859	4,334,634	1,558,169	1,489,079	506,976	24,871,990
1948-49 ..	13,815,846	8,548,147	7,579,954	2,525,528	2,420,541	910,926	35,800,942
1949-50 ..	15,923,965	9,737,254	8,379,575	2,965,857	2,808,053	1,049,961	40,864,665
1950-51 ..	18,520,494	11,658,885	9,995,576	3,491,448	3,424,644	1,237,117	48,328,364
1951-52 ..	24,166,870	14,049,324	12,614,922	4,451,992	4,270,946	1,604,932	61,149,986
1952-53 ..	29,605,395	15,157,485	13,150,493	5,031,698	4,793,057	1,780,648	69,818,746

(a) Years ended previous 31st December. (b) Years ended 30th September. (c) Years ended 30th June. (d) Municipalities—Years ended 31st October; Road Districts—Years ended 30th June.

(iii) *Business Undertakings.* The table hereunder shows, for 1952-53, particulars of the revenue and expenditure, other than loan, of business undertakings under the control of local government authorities. These particulars are not included in the foregoing tables.

**LOCAL GOVERNMENT AUTHORITIES : BUSINESS UNDERTAKINGS—REVENUE AND EXPENDITURE, 1952-53.**  
(£.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
<b>REVENUE (EXCLUDING LOAN RECEIPTS).</b>							
Water Supply and Sewerage—							
Rates .. ..	1,294,730	..	28,086	..	10,974	350,77	1,684,562
Charges for Services and Sales of Products ..	332,704	88,985	2,516,584	1,710	2,303	78,594	3,020,880
Other (Including Grants) ..	(a) 751,102	5,084	1,458,300	..	..	35,392	2,250,058
Total .. ..	2,378,626	94,069	4,003,060	1,710	13,277	464,758	6,955,500
Electricity and Gas—							
Rates .. ..	149,062	..	12,242	489	..	..	161,793
Charges for Services and Sales of Products ..	30,007,194	7,040,585	5,374,611	413,342	426,080	..	43,261,812
Other (Including Grants) ..	1,127,629	100,068	313,283	27,726	10,317	..	1,579,923
Total .. ..	31,283,885	7,141,553	5,700,136	441,557	436,397	..	45,003,528
Railways, Tramways and Omnibuses—							
Rates .. ..	..	..	..	..	..	38,735	38,735
Charges for Services and Sales of Products ..	..	..	2,927,478	..	..	639,969	3,567,447
Other (Including Grants) ..	..	..	102,135	..	..	9,871	112,006
Total .. ..	..	..	3,029,613	..	..	688,575	3,718,188
Other—							
Rates .. ..	(b) ..	(c) ..	(d) 1,922	(e) ..	(f) 513	(g) 181	2,616
Charges for Services and Sales of Products ..	1,988,563	403,010	49,836	14,691	18,673	57,377	2,532,150
Other (Including Grants) ..	2,501	17,056	13,685	4,519	..	1,328	39,080
Total .. ..	1,991,064	420,066	65,443	19,210	19,186	58,886	2,573,855
Grand Total .. ..	35,653,575	7,655,688	12,798,252	462,477	468,860	1,212,219	58,251,071

NOTE.—See next page for footnotes.

LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS—  
REVENUE AND EXPENDITURE, 1952-53—*continued.*

(£.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
<b>EXPENDITURE (EXCLUDING LOAN EXPENDITURE).</b>							
<b>Water Supply and Sewerage—</b>							
Working Expenses ..	1,109,397	62,162	1,418,362	1,547	9,071	231,567	2,832,109
Depreciation ..	(h) 72,907	12,351	..	..	..	..	— 60,556
Debt Charges ..	651,687	17,827	1,020,072	65	5,053	202,398	1,897,102
Other (including Transfers to General Revenue and Construction) ..	..	1,331	1,376,776	..	..	55,935	1,434,042
<b>Total .. ..</b>	<b>1,688,177</b>	<b>93,671</b>	<b>3,815,210</b>	<b>1,612</b>	<b>14,127</b>	<b>489,900</b>	<b>6,102,697</b>
<b>Electricity and Gas—</b>							
Working Expenses ..	27,364,730	6,180,650	4,464,229	384,780	356,280	..	38,750,669
Depreciation ..	(h) 958,194	277,183	..	..	33,752	..	1,269,129
Debt Charges ..	2,118,632	386,158	690,615	26,209	28,973	..	3,250,587
Other (including Transfers to General Revenue and Construction) ..	..	261,236	429,059	16,390	16,605	..	723,290
<b>Total .. ..</b>	<b>30,441,556</b>	<b>7,105,227</b>	<b>5,583,903</b>	<b>427,379</b>	<b>435,610</b>	<b>..</b>	<b>43,993,675</b>
<b>Railways, Tramways and Omnibuses—</b>							
Working Expenses ..	..	..	2,913,977	..	..	555,567	3,469,544
Depreciation ..	..	..	..	..	..	..	..
Debt Charges ..	..	..	386,394	..	..	105,849	492,243
Other (including Transfers to General Revenue and Construction) ..	..	..	90,358	..	..	38,476	128,834
<b>Total .. ..</b>	<b>..</b>	<b>..</b>	<b>3,390,729</b>	<b>..</b>	<b>..</b>	<b>699,892</b>	<b>4,090,621</b>
<b>Other—</b>							
Working Expenses ..	(b) 1,861,378	(c) 358,011	(d) 55,110	(e) 18,523	(f) 19,134	(g) 38,174	2,350,339
Depreciation ..	(h) 25,215	11,500	..	..	..	..	36,805
Debt Charges ..	34,783	35,667	1,659	..	114	8,565	80,788
Other (including Transfers to General Revenue and Construction) ..	..	18,933	4,456	1,246	..	6,614	31,249
<b>Total .. ..</b>	<b>1,921,376</b>	<b>124,201</b>	<b>61,234</b>	<b>19,769</b>	<b>19,248</b>	<b>53,353</b>	<b>2,499,181</b>
<b>Grand Total ..</b>	<b>34,051,109</b>	<b>7,623,099</b>	<b>12,851,076</b>	<b>448,760</b>	<b>468,985</b>	<b>1,243,145</b>	<b>56,686,174</b>

(a) Includes Government grant, £630,451, for part of cost of new works borne by Government.  
 (b) Abattoirs, ice-works, and production of building materials. (c) Abattoirs and hydraulic power undertakings. (d) Municipal markets, amusement parks, hotels, and cinemas. (e) Quarries.  
 (f) Quarries, ice-works and abattoirs. (g) Abattoirs. (h) Net balance after deducting charge for debt redemption. The full amount of charge for debt redemption is included under debt charges.

NOTE.—For years to which particulars relate, *see* preceding table. Minus sign (—) indicates an excess of credits.

The next table shows the revenue and expenditure, other than loan, of local government business undertakings for the years 1938-39 and 1948-49 to 1952-53.

## LOCAL GOVERNMENT AUTHORITIES : BUSINESS UNDERTAKINGS—REVENUE AND EXPENDITURE.

(£.)

Year.	N.S.W.(a)	Victoria.(b)	Q'land.(c)	S. Aust.(c)	W. Aust.(d)	Tas.(c)	Total.
REVENUE (EXCLUDING LOAN RECEIPTS).							
1938-39 ..	6,405,010	1,813,796	3,373,966	113,132	962,470	528,461	13,196,835
1948-49 ..	14,294,306	3,667,290	5,658,198	229,896 (e)	733,538	750,963	25,334,191
1949-50 ..	16,337,869	4,520,756	6,608,609	272,369	523,654	795,929	29,059,186
1950-51 ..	20,773,694	5,094,127	7,923,664	328,840	550,538	927,257	35,598,120
1951-52 ..	26,803,005	6,309,342	10,435,609	379,576	436,151	1,088,285	45,451,968
1952-53 ..	35,653,575	7,655,688	12,798,252	462,477	468,860	1,212,219	58,251,071

EXPENDITURE (EXCLUDING LOAN EXPENDITURE).							
1938-39 ..	5,556,123	1,802,972	3,256,263	123,356	935,052	513,666	12,187,432
1948-49 ..	14,394,453	3,597,041	5,701,314	258,702 (e)	755,793	736,647	25,443,950
1949-50 ..	16,659,960	4,494,128	6,655,637	292,237	535,287	797,887	29,435,136
1950-51 ..	20,556,981	5,219,961	7,917,049	339,556	585,938	926,336	35,545,821
1951-52 ..	27,381,428	6,248,151	10,734,811	394,516	453,963	1,070,473	40,283,342
1952-53 ..	34,051,109	7,623,099	12,851,076	448,760	468,985	1,243,145	50,686,174

(a)-(d) See notes to corresponding table on Ordinary Services (page 672). (e) Electricity undertaking taken over by State Electricity Commission on 20th December, 1948. Includes trading from 1st November, 1948 to 19th December, 1948.

(iv) *Loan Expenditure.* The table below shows particulars for 1952-53 of loan expenditure on works connected with the ordinary services and the business undertakings of local government authorities.

## LOCAL GOVERNMENT AUTHORITIES : LOAN EXPENDITURE ON WORKS, 1952-53.

(£.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
ORDINARY SERVICES.							
Roads, Bridges, Streets, Footpaths, Drainage and Sewerage ..	2,047,126	1,006,714	1,579,126	378,093	347,859	350,754	10,830,967
Council Properties ..	1,902,840	537,135	1,016,766	31,267	325,082		
Parks, Gardens and Recreational Reserves ..	311,378	140,662		..	27,797		
Other ..	(a) 398,421	112,709	302,061	655	14,522		
Total ..	4,659,765	1,797,220	2,897,953	410,015	715,260	350,754	10,830,967

BUSINESS UNDERTAKINGS.							
Water Supply ..	1,665,657	36,659	1,466,640	..	..	732,011	18,596,466
Sewerage ..	351,343	..	568,971	..	2,980		
Electricity and Gas ..	8,276,375	1,685,315	3,106,576	115,004	40,968		
Railways, Tramways and Omnibuses ..	..	..	243,561	..	..		
Abattoirs ..	201,682	50,436	..	..	..	732,011	18,596,466
Other ..	1,387	..	50,901	..	..		
Total ..	10,496,444	1,772,410	5,436,649	115,004	43,948	732,011	18,596,466
Grand Total ..	15,156,200	3,569,630	8,334,602	525,019	759,208	1,082,765	29,427,433

(a) Includes advances for homes, £200,550.

NOTE.—For years to which particulars relate, see next table.



The following table shows the loan expenditure on works connected with local government ordinary services and business undertakings during the years 1938-39 and 1948-49 to 1952-53 :—

### LOCAL GOVERNMENT AUTHORITIES : LOAN EXPENDITURE ON WORKS.

(£.)

Year.	N.S.W.(a)	Victoria.(b)	Q'land.(c)	S. Aust.(c)	W. Aust.(d)	Tas.(c)	Total.
ORDINARY SERVICES.							
1938-39 ..	1,757,704	662,986	1,316,651	43,479	117,172	39,481	3,937,473
1948-49 ..	2,614,670	712,378	2,326,484	189,792	356,977	189,497	6,389,798
1949-50 ..	2,769,996	924,630	2,737,791	331,047	500,905	315,439	7,579,808
1950-51 ..	3,242,674	1,194,723	3,546,437	280,704	586,386	347,347	9,198,271
1951-52 ..	4,255,591	1,700,714	4,412,322	512,166	692,908	467,938	12,041,639
1952-53 ..	4,659,765	1,797,220	2,897,953	410,015	715,260	350,754	10,830,967

### BUSINESS UNDERTAKINGS.

1938-39 ..	1,481,484	452,374	941,911	9,542	76,280	232,687	3,194,278
1948-49 ..	4,038,922	654,619	2,109,248	16,900	36,794	196,499	7,052,982
1949-50 ..	6,356,107	680,481	2,811,709	8,044	71,005	396,297	10,323,643
1950-51 ..	8,950,059	1,185,122	3,311,223	74,864	64,087	449,703	14,035,058
1951-52 ..	12,077,623	1,841,068	5,432,804	100,873	46,884	811,166	20,310,418
1952-53 ..	10,196,444	1,772,410	5,436,649	115,004	43,948	732,011	18,596,466

(a) Years ended previous 31st December. (b) Years ended 30th September. (c) Years ended 30th June. (d) Municipalities—Years ended 31st October; Road Districts—Years ended 30th June.

## § 3. Local and Semi-Governmental Authorities' Debt.

1. **General.**—Statistics of local and semi-governmental debt for the years 1938-39 and 1950-51 to 1953-54 are given in the following paragraph. The information covers all local government authorities and those semi-governmental authorities responsible for the provision of the following services :—

*New South Wales.* Water Supply, Sewerage and Drainage, Electricity Supply, Fire Brigades, Banking. County Councils are included among these authorities.

*Victoria.* Water Supply and Sewerage, Irrigation and Drainage, Harbours, Tramways, Electricity and Gas Supply, Fire Brigades, Marketing (Buying and Selling), Industry Assistance, Grain Elevators, Housing, Miscellaneous.

*Queensland.* Water Supply and Sewerage, Irrigation and Drainage, Harbours, Electricity Supply, Roads and Bridges, Fire Brigades, Universities, Hospitals and Ambulances, Marketing (Buying and Selling and Agency), Industry Assistance.

*South Australia.* Irrigation and Drainage, Tramways, Electricity Supply, Fire Brigades, Hospitals and Ambulances, Marketing (Agency), Industry Assistance, Banking, Housing, Miscellaneous.

*Western Australia.* Water Supply and Sewerage, Irrigation and Drainage, Harbours, Tramways, Electricity Supply, Fire Brigades, Hospitals and Ambulances, Marketing (Agency), Housing.

*Tasmania.* Harbours, Electricity Supply, Fire Brigades, Housing.

A detailed list of the authorities included is shown in *Finance Bulletin* No. 45, 1953-54.

2. **Local and Semi-Governmental Authorities' Debt.**—The following table provides a summary of new money loan raisings, provisions for the redemption of debt, debt outstanding and interest payable of local and semi-governmental authorities for the years ended 30th June, 1953 and 1954. For greater detail See *Finance Bulletin* No. 45, 1953-54.

**LOCAL AND SEMI-GOVERNMENTAL AUTHORITIES: NEW MONEY LOAN  
RAISINGS, REDEMPTION, DEBT AND INTEREST PAYABLE 1952-53 AND 1953-54.**  
(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
<b>LOCAL GOVERNMENT AUTHORITIES.</b>							
<b>1952-53.</b>							
New Money Loan Raisings—							
From Government ..	130	23	1,335	137	22	1	1,648
From Public ..	7,553	3,901	7,802	410	765	1,091	21,522
Total ..	7,683	3,924	9,137	547	787	1,092	23,170
Funds Provided for Redemption—							
Government Loans ..	32	8	977	238	4	8	1,267
Loans due to Public ..	2,191	1,008	1,602	76	281	317	6,475
Total ..	3,223	1,016	2,579	314	285	325	7,742
Accumulated Sinking Fund Balance ..	5,097	1,844	2,482	..	225	299	9,947
Debt—							
Due to Government ..	1,330	293	11,072	707	90	100	13,642
Due to Banks (Net Overdraft) ..	225	829	565	69	7	295	1,990
Due to Public Creditor (a) ..	48,125	19,511	46,064	1,175	3,426	5,850	125,951
Total(a) ..	49,730	20,633	58,601	1,951	3,523	6,245	110,683
Maturing Overseas(a)(b) ..	1,812	..	2,213	..	..	..	4,025
Annual Interest Payable (a) ..	(c)	799	2,163	54	134	224	(c)
<b>LOCAL GOVERNMENT AUTHORITIES.</b>							
<b>1953-54.</b>							
New Money Loan Raisings—							
From Government ..	308	56	1,997	586	18	35	3,000
From Public ..	10,958	3,341	7,553	433	1,265	1,174	23,844
Total ..	10,366	3,397	9,550	1,019	1,303	1,209	26,844
Funds Provided for Redemption—							
Government Loans ..	58	13	996	256	1	8	1,333
Loans due to Public ..	2,952	1,118	2,099	98	340	321	6,927
Total ..	3,010	1,131	3,095	354	341	329	8,260
Accumulated Sinking Fund Balance ..	5,198	2,029	2,743	1	199	260	10,430
Debt—							
Due to Government ..	1,687	336	12,062	1,036	42	127	15,290
Due to Banks (Net Overdraft) ..	146	543	27	55	4	20	795
Due to Public Creditor(a) ..	55,148	21,468	52,638	1,509	4,397	6,673	141,831
Total(a) ..	56,981	23,347	64,727	2,600	4,443	6,820	157,918
Maturing Overseas(a)(b) ..	1,812	..	2,103	..	..	..	3,915
Annual Interest Payable(a) ..	(c)	894	2,530	73	181	267	(c)
<b>SEMI-GOVERNMENTAL AND OTHER PUBLIC AUTHORITIES.</b>							
<b>1952-53.</b>							
New Money Loan Raisings—							
From Government ..	15,228	21,621	263	8,694	2,961	9,118	57,885
From Public ..	18,801	32,377	5,827	4,686	2,979	4,162	68,831
Total ..	34,029	53,998	6,090	13,380	5,940	13,280	120,716
Funds Provided for Redemption—							
Government Loans ..	468	751	143	345	321	288	2,316
Loans due to Public ..	1,814	2,518	704	3	43	54	5,166
Total ..	2,312	3,290	847	348	364	342	7,512
Accumulated Sinking Fund Balance ..	11,054	5,944	..	461	18	10	17,487
Debt—							
Due to Government ..	77,897	101,067	3,640	48,709	21,937	43,411	296,661
Due to Banks (Net Overdraft) ..	1,146	3,392	882	46	24	..	5,490
Due to Public Creditor(a) ..	138,216	189,877	21,480	17,491	3,321	6,002	376,390
Total(a) ..	217,259	294,336	26,002	66,249	25,282	10,117	678,541
Maturing Overseas(a)(b) ..	8,541	3,899	..	767	..	..	13,207
Annual Interest Payable(a) ..	(c)	10,351	1,014	2,390	962	1,571	(c)

NOTE.—See next page for footnotes.

LOCAL AND SEMI-GOVERNMENTAL AUTHORITIES: NEW MONEY LOAN  
RAISINGS, REDEMPTION, DEBT AND INTEREST PAYABLE 1952-53 AND  
1953-54—continued.

(£'000.)

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
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## SEMI-GOVERNMENTAL AND OTHER PUBLIC AUTHORITIES.

1953-54.

New Money Loan Raisings—							
From Government ..	20,040	20,977	1,349	12,601	1,873	9,523	66,363
From Public ..	14,231	34,485	8,631	2,565	2,784	2,024	64,720
Total ..	34,271	55,462	9,980	15,166	4,657	11,547	131,083
Funds Provided for Redemption—							
Government Loans ..	574	800	211	424	370	360	2,739
Loans due to Public ..	2,528	4,650	1,271	2,312	82	113	10,956
Total ..	3,102	5,450	1,482	2,736	452	473	13,695
Accumulated Sinking Fund Balance ..	12,169	6,487	188	562	54	58	19,518
Debt—							
Due to Government ..	97,364	121,172	4,766	60,988	23,441	44,796	352,527
Due to Banks (Net Overdraft) ..	336	190	711	18	8	..	1,263
Due to Public Creditor(a) ..	151,268	220,823	34,492	17,746	6,059	7,964	438,352
Total(a) ..	248,968	342,185	39,969	78,752	29,508	52,760	792,142
Maturing Overseas(a)(b) ..	8,520	3,886	..	767	..	..	13,176
Annual Interest Payable(a) ..	(c)	12,510	1,646	2,916	1,145	1,792	(c)

(a) Includes debt or interest payable in London and New York. The former is expressed in United Kingdom currency, the latter is payable in dollars which have been converted at the rate of 4.8665 dollars to £1.

(b) Included in debt figures above.

(c) Not available.

In this and the following tables, debt includes all liabilities for which arrangements have been made for repayment over a period of one year or more, and net overdrafts. Interest capitalized and amounts due for the capital cost of assets or for services rendered which are to be repaid over a period of one year or more are included. Current liabilities, such as interest accrued (but not capitalized), trade creditors, amounts held in trust and other debts which are to be repaid in less than one year are not included. Net overdraft is the gross overdraft of all funds less all bank credit balances (including fixed deposits) which do not form part of a sinking fund to repay a loan. New loans raised during the year include new loan liabilities incurred during the year, loans raised to repay indebtedness to the Government, and interest capitalized. Loans raised and redeemed within the year, increases in overdrafts and loans raised for conversion or redemption of existing debt are excluded. Funds provided for redemption include instalments of principal repaid and amounts credited to sinking funds established for the purpose of repaying the debt on maturity. Amounts provided for redemption from loans raised for that purpose are excluded.

In the following table a summary is given of new money loan raisings, provisions for the redemption of debt and debt outstanding of local and semi-governmental authorities for the years 1938-39 and 1950-51 to 1953-54.

**LOCAL AND SEMI-GOVERNMENTAL AUTHORITIES, AUSTRALIA : NEW MONEY  
LOAN RAISINGS, REDEMPTION AND DEBT.**

(£'000.)

Particulars.	1938-39.	1950-51.	1951-52	1952-53.	1953-54.
<b>LOCAL GOVERNMENT AUTHORITIES.</b>					
New Money Loan Raisings—					
From Government .. ..	371	1,970	3,175	1,648	3,000
From Public .. ..	7,060	16,502	18,381	21,522	23,844
Total .. ..	7,431	18,472	21,556	23,170	26,844
Funds provided for Redemption—					
Government Loans .. ..	2,141	748	942	1,267	1,333
Loans due to Public .. ..	2,995	4,777	5,351	6,475	6,927
Total .. ..	5,136	5,525	6,293	7,742	8,260
Accumulated Sinking Fund Balance ..	(a)	9,826	9,542	9,947	10,439
Debt—					
Due to Government .. ..	13,207	11,110	13,374	13,642	15,290
Due to Banks (Net Overdraft) ..	1,544	1,163	2,567	1,990	795
Due to Public Creditor(b) .. ..	76,582	97,038	109,600	125,051	141,833
Total(b) .. ..	91,333	109,311	125,555	140,683	157,918
Maturing Overseas(b)(c) .. ..	17,893	4,429	4,229	4,025	3,915
<b>SEMI-GOVERNMENTAL AND OTHER PUBLIC AUTHORITIES.</b>					
New Money Loan Raisings—					
From Government .. ..	1,524	23,205	69,130	57,885	66,363
From Public .. ..	7,038	54,140	56,173	68,831	64,720
Total .. ..	8,562	77,345	125,303	126,716	131,083
Funds provided for Redemption—					
Government Loans .. ..	699	1,616	1,864	2,316	2,739
Loans due to Public .. ..	1,146	5,415	3,962	5,196	10,956
Total .. ..	1,845	7,031	5,826	7,512	13,695
Accumulated Sinking Fund Balance ..	(a)	14,583	16,119	17,487	19,518
Debt—					
Due to Government .. ..	(d)44,817	111 676	218,210	296,661	352,527
Due to Banks (Net Overdraft) ..	2,006	4,718	9,141	5,490	1,263
Due to Public Creditor(b) .. ..	118,506	253,169	307,240	376,390	438,352
Total(b) .. ..	165,329	369,563	534,591	678,541	792,142
Maturing Overseas(b)(c) .. ..	12,088	12,923	13,267	13,207	13,176

(a) Not available. (b) Includes debt in London and New York. The former is expressed in United Kingdom currency, the latter is payable in dollars which have been converted at the rate of 4.8665 dollars to £1. (c) Included in debt figures above. (d) Approximate only.

### § 4. Roads and Bridges.

1. Commonwealth Government Grants.—The following table shows the allocations to the several States under the several Commonwealth Aid Roads and Works Acts, for road construction, maintenance, repair and other works connected with transport during the years 1938-39 and 1948-49 to 1953-54. Allocations for the construction and maintenance of strategic roads and for the promotion of road safety practices made in the years 1948-49 to 1953-54 are excluded. The aggregate amounts payable under the relevant Acts from 1922-23 to 1953-54 for the purposes outlined above are also shown. Further particulars of these grants appear in Chapter XX.—Public Finance and in *Finance Bulletins*.

## ROAD CONSTRUCTION, MAINTENANCE, ETC.: GRANTS BY COMMONWEALTH GOVERNMENT.

(£'000.)

Year ended 30th June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
1939 .. .. .	1,199	747	815	474	819	213	4,267
1949 .. .. .	2,003	1,236	1,363	781	1,363	355	7,101
1950 .. .. .	2,472	1,526	1,683	965	1,683	438	8,767
1951 .. .. .	3,819	2,357	2,600	1,490	2,600	677	13,543
1952 .. .. .	4,131	2,549	2,812	1,611	2,812	732	14,647
1953 .. .. .	4,260	2,629	2,900	1,662	2,900	756	15,107
1954 .. .. .	4,641	2,863	3,160	1,810	3,160	823	(a) 21,457
Aggregate, years 1922-23 to 1953-54 .. .. .	39,191	24,486	26,676	15,497	26,812	6,932	a 144,644

(a) Includes £5,000,000 paid into the Commonwealth Aid Roads (Supplementary) Trust Account, to be expended on grants to the States for roads purposes in subsequent years.

2. New South Wales.—(i) *General.* A central road authority was created by legislation early in 1925 for the purpose of providing improved and uniform standards of construction and maintenance of the principal roads, and to administer Governmental subsidies for work on those roads. This authority, known as the Department of Main Roads, exercises control over Government activities in connexion with road works. Its activities embrace works on main and developmental roads throughout the State, all roads in the unincorporated portion of the Western Division, and proclaimed national works (principally bridges and vehicular ferries) constructed from Government funds. The department co-operates with the municipal and shire councils in the work of constructing and maintaining a well-organized system of main highways.

In the metropolitan district the whole cost of the construction and maintenance of main roads is paid from the funds of the Main Roads Department, while in the country districts assistance in respect of road works may be granted for any area through which a main road passes. The cost of constructing developmental roads and works is borne in full by the Main Roads Department, but local councils are required to maintain them in satisfactory condition. For other roads the cost of both construction and maintenance work is generally chargeable to the revenue of local authorities, although Governmental assistance is not infrequently granted for works of construction and re-construction. In the Western Division the full cost of all roads and bridges is met by the Department of Main Roads.

The general system of road communication throughout the State is made up of main roads classified into State highways, trunk roads and ordinary main roads. There are also secondary roads (metropolitan area) and developmental roads.

Public roads, except those within the City of Sydney, may be proclaimed as main roads on the recommendation of the Commissioner for Main Roads, who takes into consideration representations made by councils concerned, availability of funds for construction and maintenance purposes, and the value as connecting links between centres of population or business.

(ii) *Length of Roads.* (a) *Proclaimed Roads.* The following table shows lengths of proclaimed roads at 30th June, 1954, according to class of road :—

PROCLAIMED ROADS, NEW SOUTH WALES : LENGTHS, 30th JUNE, 1954.  
(Miles.)

Division.	Main Roads.				Secondary Roads.	Developmental Roads.	Total.
	State Highways.	Trunk Roads.	Ordinary Main Roads.	Total.			
Eastern and Central	5,199	2,874	9,695	17,768	(a) 77	2,934	20,779
Western ..	1,329	1,355	2,839	5,523	..	..	(b) 5,523
Total ..	6,528	4,229	12,534	23,291	77	2,934	26,302

(a) Metropolitan area.  
Department.

(b) Excludes 3,213 miles of unclassified roads, the responsibility of the

During 1953-54, 89 miles of new developmental roads were proclaimed and 66 miles were removed from the list of proclaimed roads. There were no main roads proclaimed during the year.

The length of main and secondary roads maintained by the Department of Main Roads at 30th June, 1954 (excluding the Western Division) was 2,807 miles (16 per cent.), while the length maintained by councils was 15,038 miles (84 per cent.). The proportions of the several classes of main roads maintained by the Department and councils respectively were :—State highways, 41 per cent., 59 per cent.; trunk roads, 2 per cent., 98 per cent.; ordinary main roads, 6 per cent., 94 per cent. Secondary roads were wholly maintained by councils. In the County of Cumberland (the metropolis and adjoining areas) the Department maintained 55 per cent. of the roads (504 miles).

(b) *Composition of Roads.* In 1954, the total length of all roads in New South Wales was estimated at 125,029 miles, including 8,645 miles in the Western Division. The lengths of roads, according to their composition or nature, were as follows :—cement concrete, 405 miles; asphaltic concrete, 200 miles; tar or bituminous macadam, 4,684 miles; surface water-bound macadam, 5,442 miles; water-bound macadam, 1,792 miles; gravel or crushed rock, 39,550 miles; formed only, 27,279 miles; cleared or natural surface only, 45,677 miles.

(iii) *Main Roads Department.* (a) *General.* Progress has continued with the implementation of the Main Roads Department plan for main road development in the metropolis and the balance of the County of Cumberland. The plan has been incorporated in the County of Cumberland Planning Scheme approved by Parliament under the Local Government (Amendment) Act 1951. Detailed planning of the Newcastle and District Arterial Roads System is well advanced and some sections of the system have already been constructed. Surveys and designs have been advanced in the planned Wollongong-Port Kembla District Main Roads System.

In addition to its construction and maintenance work on roads, the Main Roads Department is engaged on a scheme for widening metropolitan roads. The acquisition of land required to implement approved schemes has been proceeding.

During 1953-54, 49 new bridges were completed on main roads by the Department and councils. Major bridge works under construction include steel and concrete bridges over Iron Cove between Balmain and Drummoyne, Sydney (length 1,536 feet), over

Middle Harbour at the Spit, Sydney (length 745 feet), over George's River at Liverpool (length 912 feet), and over the Clyde River at Bateman's Bay (length 1,008 feet).

(b) *Receipts and Payments.* The funds of the Department of Main Roads are derived principally from taxation of motor vehicles, contributions by the Commonwealth Government under the Commonwealth Aid Roads and Works Acts (*see* Chapter XX.—Public Finance, for some particulars of the basis and distribution of grants under these Acts and para. 1 of this section for particulars of the amounts allocated in recent years), contributions by municipal and shire councils, and special (not statutory) assistance by the State Government by way of loan moneys or special grants from revenue funds. Receipts and payments for the four years 1950–51 to 1953–54 compared with the income and expenditure for 1938–39 are shown below.

### DEPARTMENT OF MAIN ROADS, NEW SOUTH WALES : RECEIPTS AND PAYMENTS.

(£.)

Item.	1938–39. (a)	1950–51.	1951–52.	1952–53.	1953–54.
<b>RECEIPTS.</b>					
Motor Vehicle Taxation, and Registration and Licence Fees	2,018,556	3,586,260	5,046,392	6,381,289	6,693,215
Commonwealth Aid Roads and Works Acts .. ..	1,176,039	2,560,447	2,881,122	2,916,757	3,268,949
Councils' Contributions .. ..	250,679	328,283	396,766	486,352	559,780
Consolidated Revenue (State) .. ..	..	350,000	300,000	100,000	850,000
Loans from State Government .. ..	302,643	215,000	225,000	150,000	..
Grants and Contributions from State Government and Departments, etc. .. ..	13,549	26,470	58,545	74,063	89,266
Commonwealth Funds for Special Works .. ..	..	133,140	192,566	365,574	326,197
Hire of Plant and Motor Vehicles .. ..	..	393,224	479,048	618,913	983,831
Suspense Accounts .. ..	..	..	..	39,685	10,674
Other .. ..	54,782	149,679	171,562	261,476	187,646
<b>Total .. ..</b>	<b>3,816,248</b>	<b>7,743,203</b>	<b>9,751,001</b>	<b>11,394,109</b>	<b>12,969,558</b>
<b>PAYMENTS.</b>					
<b>Roads and Bridges—</b>					
Construction .. ..	1,736,898	2,276,055	3,625,036	4,302,422	6,331,164
Maintenance .. ..	1,519,929	3,787,059	4,921,350	4,554,406	5,147,154
Other Works .. ..	..	..	..	28,178	27,156
<b>Debt Charges—</b>					
Interest, Exchange, etc. .. ..	152,460	120,702	123,297	122,651	136,450
Debt Redemption .. ..	200,591	25,875	27,776	(b) 129,472	31,442
<b>Repairs and Expenses, Plant and</b>					
<b>Motor Vehicles .. ..</b>	<b>..</b>	<b>253,405</b>	<b>367,940</b>	<b>510,867</b>	<b>469,570</b>
Purchase of Assets .. ..	..	435,885	816,649	548,167	973,929
Suspense Accounts .. ..	..	98,259	92,528	..	2,438
Administration, etc. .. ..	100,583	279,622	348,652	395,636	422,428
Other .. ..	914	97,181	139,341	131,216	97,651
<b>Total .. ..</b>	<b>3,711,384</b>	<b>7,374,043</b>	<b>10,462,560</b>	<b>10,723,011</b>	<b>13,639,382</b>

(a) Income and expenditure.

(b) Includes £100,000 repayment to Treasury of funds specially provided by the State Government in earlier years from Consolidated Revenue.

The figures shown above represent the aggregate receipts and payments of three funds—the County of Cumberland Main Roads Fund, the Country Main Roads Fund and the Developmental Roads Fund. From 1st January, 1925 to 30th June, 1954 receipts amounted to £138,985,137 and payments to £137,818,047. Particulars of the individual funds are—County of Cumberland, receipts £36,114,802, payments £35,531,410; Country, £98,363,263, £97,802,536; Developmental, £4,507,072, £4,484,101.

The total expenditure on roads, streets and bridges in the State by all authorities during the years 1938–39 and 1949–50 to 1952–53 was, respectively, £8,891,000, £12,377,000, £14,840,000, £19,969,000, and £22,593,000. These figures are approximate and they include expenditure on construction, maintenance and direct administration, but not on debt charges. Expenditure on the Sydney Harbour Bridge is not included.

(c) *Sydney Harbour Bridge.* The Sydney Harbour Bridge was opened for traffic on 19th March, 1932. The main span is 1,650 feet and the clearance for shipping 170 feet from high water level. The deck, 160 feet wide, carries a roadway, two railway tracks and two tramway tracks, and there is also a footway on each side. The capital cost of the bridge to the 30th June, 1954, was £9,725,507, but this amount will be reduced by approximately £260,000 on the disposal of all surplus resumed property. The portion met from repayable loan funds, over £8,000,000, is to be repaid over a period of 53 years ending approximately in 1985. The accumulated balance of the Bridge Account at 30th June, 1954, showed a surplus of £15,920, after the transfer of sums totalling £985,000 to a reserve account. Annual income, after a decline to less than £300,000 during the 1939–45 War, has risen from about £400,000 in 1938–39 to over £800,000 in 1953–54; expenditure over the same period has remained relatively stable, varying between £424,000 and £500,000. In 1953–54 income included road tolls £648,641, railway passenger tolls £139,340, and tram and omnibus passenger tolls £26,045. Expenditure amounted to £492,776, including interest, exchange, etc., £235,065, sinking fund, £62,581 and maintenance and improvement £117,666. During 1953–54, 25,056,000 rail travellers, 23,753,000 tram and omnibus travellers, and 29,384,000 road travellers in 17,786,000 road vehicles crossed the bridge, contributing respectively, 17 per cent., 3 per cent., and 80 per cent. of the total toll revenue.

3. *Victoria.*—(i) *General.* With the object of improving the main roads of the State the Country Roads Board was established by legislation passed in 1912. The principal duties of the Board are to determine the main roads, State highways, tourists' roads, etc., to inquire into the State's resources in road materials and the most effective methods of road construction and maintenance, and to recommend deviations in existing roads or the construction of new roads in order to facilitate communication or to improve the conditions of traffic.

(ii) *Length of Roads.* (a) *Declared Roads.* The total length of declared roads in Victoria at 30th June, 1953 the latest date for which details are available, was 14,448 miles, classified as follows:—State highways, 3,849 miles; main roads, 9,792 miles; tourist roads, 432 miles; forest roads, 375 miles. The total length of the surface treated (black) system included in the foregoing totals was 7,361 miles or 51 per cent.

(b) *Composition of Roads.* It is estimated that, in addition to the 14,448 miles of classified roads as above, there were approximately 90,000 miles of unclassified roads at 30th June, 1953. The latest detailed estimate of the length of roads and streets in Victoria (as at 30th September, 1948) provides the following information:—Wood or stone, 62 miles; portland cement concrete, 150 miles; asphaltic concrete and sheet asphalt, 202 miles; tar or bitumen surface seal, 10,241 miles; water-bound macadam, gravel, sand and hard loam pavements, 28,418 miles; formed only, 23,901 miles; surveyed only, 38,437 miles; total 101,411 miles.

(iii) *Country Roads Board.* (a) *General.* During 1953–54 1,198 miles of declared roads under the Board's control were treated with bitumen. In addition, 83 miles of undeclared roads, for which the Board contributed funds, were similarly treated. Work for other authorities carried out by the Board's plant amounted to 148 miles. The total length of bitumen treatment carried out in 1953–54 was 1,429 miles. Of the work on the roads under the Board's control, 568 miles related to State highways.

During 1953–54, 164 bridge projects with a total value of £646,804 were initiated. Of these new projects, 30 with a total value of £295,395 were supervised by the Board and 134 with a total value of £351,409, were supervised by municipalities.



(b) *Receipts and Payments.* The funds of the Country Roads Board are derived principally from motor vehicle registration fees, drivers' licence fees, contributions from the Commonwealth Government under Commonwealth Aid Roads and Works Acts and payments from municipalities. In addition loans have been authorized from time to time under the Country Roads Acts for permanent works on main roads and State highways and restoration of flood and bush fire damage. During the year ended 30th June, 1954, loan receipts and payments each amounted to £1,512,741, and expenditure included £245,741 for restoration of flood and bush fire damage. The total loan expenditure to 30th June, 1954 was £10,368,745. This figure does not include loan expenditure from the Developmental Roads Loan Account, which fund was created for the purpose of constructing and maintaining subsidiary or developmental roads. Loan money raised on this account was exhausted at 30th June, 1937, the total expenditure at that date being £6,425,758.

Total receipts and payments during each of the years 1938-39 and 1950-51 to 1953-54 are shown below :—

## COUNTRY ROADS BOARD, VICTORIA : RECEIPTS AND PAYMENTS.

(£.)

Item.	1938-39.(a)	1950-51.	1951-52.	1952-53.	1953-54.
<b>RECEIPTS.</b>					
Motor Vehicle Registration Fees ..	1,690,962	3,015,82c	3,694,012	3,702,131	3,791,643
Drivers' Licence Fees (b) ..	..	143,291	159,950	159,402	178,885
Municipalities' Payments ..	318,878	187,109	283,391	344,32c	331,605
Commonwealth Aid Roads and Works Acts (c) ..	716,019	1,988,662	2,501,150	2,446,02c	2,741,608
Loans from State Government ..	57,972	715,956	1,046,621	1,191,509	1,512,741
Stores and Materials ..	233,104	..	..	..	..
Hire of Plant ..	53,724	..	..	..	..
Other ..	117,341	3,521	4,222	2,092	1,841
<b>Total ..</b>	<b>3,188,000</b>	<b>6,054,359</b>	<b>7,689,346</b>	<b>7,845,483</b>	<b>8,558,323</b>
<b>PAYMENTS.</b>					
Construction and Maintenance of Roads and Bridges—					
State Highways ..	453,708	2,077,175	2,158,205	2,250,803	2,503,912
Main Roads ..	1,027,210	2,059,075	2,626,675	2,492,855	2,843,251
Tourist Roads ..	77,694	212,398	196,512	232,778	217,804
Forest Roads ..	..	63,333	69,15c	113,895	108,504
Unclassified Roads ..	468,122	937,692	773,384	918,941	995,787
Roads adjoining Commonwealth Properties ..	13,321	709	1,099	..	..
Other ..	(d) 58,729	11,641	10,775	13,843	17,032
Relief to Municipalities ..	240,170	..	..	..	..
Plant, Stores and Materials ..	310,332	578,273	701,760	840,258	670,389
Interest, Debt Redemption, etc. ..	427,445	526,845	537,870	570,001	611,154
Administration Expenditure ..	230,125	310,7c6	450,351	449,030	551,046
Other ..	..	410,853	289,471	..	..
<b>Total ..</b>	<b>3,306,856</b>	<b>7,188,700</b>	<b>7,815,252</b>	<b>7,882,409</b>	<b>8,518,879</b>

(a) Figures for 1938-39 are not directly comparable with those of succeeding years owing to a change in the method of compilation adopted by the Country Roads Board. (b) Prior to 1st July, 1949 drivers' licence fees were paid into Consolidated Revenue Fund. From that date until 31st December, 1950 the fees were credited to the funds of the Country Roads Board. Since then one half of the fees have been credited to the funds of the Country Roads Board while the remaining half have been credited to the Municipalities Assistance Fund. (c) Excludes portion of Commonwealth Aid Roads and Works Acts advances drawn by the Public Works Department for expenditure on wharfs, jetties, etc. (d) Includes £54,662 expenditure on unemployment relief works.

4. *Queensland.*—(i) *General.* Under the Main Roads Act 1920 a Main Roads Board was constituted, consisting of three members appointed by the Governor-in-Council. In 1925 the Board was abolished and its powers conferred upon a single Commissioner. The Main Roads Commission was constituted a Department under the name of the Department of Main Roads in February, 1951, with the Commissioner of Main Roads as its permanent head. The duties of the Commissioner are to carry out surveys and investigations necessary to determine State highways, main, developmental, secondary, mining access, farmers' and tourist roads and tourist tracks, and the responsibility for building and maintaining these declared roads is largely that of the Commissioner. Roads of purely local importance are constructed and maintained by local authorities. In many cases construction is subsidized by the State Government by means of Treasury loans. Other roads are built by the Public Estate Improvement Branch of the Lands Department in order to open up areas of previously inaccessible or undeveloped country.

(ii) *Length of Roads.* (a) *Declared Roads.* The total length of declared roads in Queensland at 30th June, 1954 was 21,050 miles, comprising State highways, 7,772 miles; main roads, 11,198 miles; developmental roads, 246 miles; secondary roads, 648 miles; mining access roads, 574 miles; farmers' roads, 312 miles; tourist roads, 298 miles; tourist tracks, 2 miles. During 1953–54, 96 miles were added to the list. The length of roads improved in Queensland from the date of commencement of work under the Main Roads Acts 1920–1952 to 30th June, 1954 was 12,237 miles (58 per cent.). At that date, also, 1,120 miles of new road construction and 980 miles of stage construction work were proceeding.

(b) *Composition of Roads.* The total length of roads and streets in Queensland at 30th June, 1954 was:—Concrete, 100 miles; bitumen, 5,612 miles; macadam, 12,744 miles; other formed, 44,341 miles; unconstructed, 62,895 miles; total, 125,692 miles.

(iii) *Department of Main Roads.* (a) *General.* During 1953–54, the Department completed 1,195 miles of roads including new construction and stage construction. Bridges of all types to a length of 6,827 linear feet were constructed, bringing the total constructed by the Department at 30th June, 1954 to 172,728 feet. In addition, at 30th June, 1954, 7,822 feet were under construction. These figures do not include particulars of the Fitzroy River and Burdekin River bridges.

The Fitzroy River Bridge (length 1,210 feet) was constructed jointly by the Main Roads Department and the Rockhampton City Council and was opened for traffic in September, 1952. The Burdekin River Bridge is a combined road and rail bridge over the Burdekin River with an overall length including approaches of 3,620 feet. The Main Roads Department is responsible for the approaches and substructure and the Co-ordinator-General's Department for the superstructure. The substructure was completed during 1953 and work is proceeding on the approaches and superstructure. Expenditure, which was adversely affected by floods in earlier years, totalled £1,559,743 to 30th June, 1954.

(b) *Receipts and Payments.* The funds of the Department of Main Roads are obtained chiefly from motor vehicle registration and collections, fees, etc., under the Transport Acts, contributions under the Commonwealth Aid Roads and Works Acts and loans, grants and advances from the State Government. The total receipts and

payments, including amounts for defence works, during each of the years 1938-39 and 1950-51 to 1953-54 are shown below :—

DEPARTMENT OF MAIN ROADS, QUEENSLAND : RECEIPTS AND PAYMENTS.  
(£.)

Item.	1938-39.	1950-51.	1951-52.	1952-53.	1953-54.
RECEIPTS.					
Motor Vehicle Registration, Transport Acts Collections, Fees, etc.	938,227	1,936,656	2,573,971	3,523,958	3,766,460
Loans from State Government ..	392,225	587,500	1,313,000	825,000	100,000
Grants, Advances, Refunds, etc. from State Government ..	579,775	553,768	305,013	103,855	349,315
Commonwealth Aid Roads and Works Acts ..	806,218	2,458,763	3,141,560	3,135,034	3,454,665
Maintenance Repayments—Local Authorities ..	98,154	258,709	317,437	308,178	311,212
Hire, Rent, Sales of Plant, etc. ..	288,330	84,840	108,276	107,468	91,875
Other ..		130,999	68,572	386,210	400,676
Total ..	3,102,929	6,011,235	7,827,829	8,389,703	8,474,203
PAYMENTS.					
Permanent Road Works and Surveys ..	2,045,900	2,943,923	5,226,719	4,113,945	3,930,659
Maintenance of Roads ..	331,734	1,434,319	1,421,304	1,180,788	1,603,418
Plant, Machinery, Buildings, etc. (including Plant Maintenance)	73,632	576,845	1,133,565	666,963	837,504
Loans—Interest ..	38,861	200,258	221,271	265,074	204,619
Redemption ..	78,153	201,151	218,053	239,066	250,156
Payments to State Consolidated Revenue ..	340,244	..	..	..	..
Payments to Local Authorities ..	27,418	1,625	1,625	1,625	1,625
Commonwealth and Allied Works and Services ..	..	..	..	..	..
Other Works and Services ..	..	22,293	94,188	..	..
Administration, etc. ..	149,950	505,544	634,733	682,724	699,428
Other ..	1,750	..	..	..	..
Total ..	3,087,642	5,885,958	8,951,458	7,450,190	7,587,409

5. South Australia.—(i) *General.* The Highways Act 1926 created a Commissioner of Highways and a Highways Fund for the purpose of improving the main roads of the State. The Commissioner of Highways had the sole responsibility of determining upon which main roads moneys from the Highways Fund were to be expended. In 1953, by the Highways Act 1926-1953 the Commissioner of Highways was placed under the control of the Minister for Roads and Local Government and now has to have ministerial approval of all main road projects.

The Highways Fund is credited with the receipts from State motor taxation, fees, fines and licences, after deduction of the costs of collection, and all loans raised and appropriated for roads. All moneys received by the State from the Commonwealth under the Commonwealth Aid Roads and Works Acts are also expended by the Commissioner of Highways under the general provisions of the Highways Act.

(ii) *Length of Roads.* The total length of roads in use for general traffic at 30th June, 1953 (the latest date for which details are available) was as follows :—Within district council and corporation boundaries ; blocks (wood or stone), 6 miles ; bituminous concrete (asphalt and premix), 600 miles ; cement concrete and cement penetration, 5 miles ; penetration or surface dressed (bitumen or tar), 2,914 miles ; metalled (gravelled or rubbled), 16,829 miles ; formed, but little or no metal, 12,391 miles ; surveyed, used by traffic, but little or no improvement, 22,270 miles ; total, 55,015 miles ; outside districts (mainroads only), 565 miles ; grand total, 55,580 miles. Lengths of main roads within district council and corporation boundaries aggregated 7,575 miles.

(iii) *State Highways and Local Government Department.* (a) *General.* The Department's programme for the acquisition of land for road improvement in the metropolitan and rural areas was continued during 1953-54 when approximately 27,500 linear feet of frontages in the metropolitan area were acquired and set back. This brought the total acquisition since the inception of the metropolitan widening scheme to 28½ miles. In rural areas the policy of widening roads and improving the alignments was continued in order to provide for an expected future increase in the volume of traffic.

(b) *Receipts and Payments.* The following table shows particulars of receipts and payments, during the years 1938-39 and 1950-51 to 1953-54, of funds controlled by the Highways and Local Government Department.

**HIGHWAYS AND LOCAL GOVERNMENT DEPARTMENT, SOUTH AUSTRALIA :  
RECEIPTS AND PAYMENTS.**  
(£.)

Item.	1938-39. (a)	1950-51.	1951-52.	1952-53.	1953-54.
<b>RECEIPTS.</b>					
Motor Vehicle Registration, Licences, Fees, Fines, etc. . .	690,849	1,286,677	1,409,510	1,497,227	2,230,045
Commonwealth Aid Roads and Works Acts . . .	479,922	1,448,845	1,650,993	1,682,961	1,873,227
Loans from State Government . .	200,000	100,000	450,000	360,000	..
Recoups—Local and Semi-governmental Authorities . .	1,531	33,398	26,018	38,267	10,443
Other . . .		149,013	211,483	(b) 864,480	263,456
Total . . .	1,372,302	3,017,933	3,748,004	4,442,935	4,377,171
<b>PAYMENTS.</b>					
Construction and Reconstruction of Roads and Bridges	c1,150,082	1,142,010	1,475,602	1,786,777	2,142,728
Maintenance . . .		384,939	538,634	666,239	918,582
Recoups to Consolidated Revenue Fund—Interest, Debt Redemption and Exchange . .	(d) 178,273	139,796	139,811	148,651	157,749
Grants and Advances to Local and Semi-governmental Authorities	(e)	646,903	1,033,519	670,460	1,343,381
Administration . . .	45,753	141,614	199,915	231,542	267,042
Stores, Plant, Machinery, Suspense Accounts, etc. . .		175,063	531,060	252,135	161,562
Other . . .		18,126	19,578	48,506	36,644
Total . . .	1,374,108	2,648,451	3,938,119	3,804,310	5,027,688

(a) Figures for 1938-39 are not completely comparable with those for following years. (b) Includes special contribution of £620,000 from Consolidated Revenue for roads for war service land settlement and developmental roads. (c) Roads, plant, etc. (d) Interest and sinking fund payments. (e) Not separately available; included elsewhere.

The total expenditure, both revenue and loan, by State and local governments on roads, streets and bridges in South Australia during the years 1938-39 and 1951-52 to 1953-54 was, respectively, £1,966,000, £4,596,000, £4,667,000 and £6,131,000.

6. *Western Australia.*—(i) *General.* Under the Main Roads Act 1930-1939 the Main Roads Board previously existing was abolished and a Commissioner of Main Roads was appointed. His duties relate to the determination of main roads after consideration of the funds available and the services to be rendered by the roads, the declaration and provision of developmental roads, the construction and maintenance of main roads, and the carrying out of surveys, investigations and experiments connected with roads and road materials. The Act authorizes two trust accounts (Main Roads Trust Account and Main Roads Contribution Trust Account) to record the moneys prescribed as available to the Commissioner for expenditure associated with roads, etc. In addition, the Commissioner operates on those Trust Accounts which are used for funds made available under the Commonwealth Aid Roads and Works Acts

(ii) *Length of Roads and Streets.* The total known lengths of roads and streets in existence in the various municipalities at 31st October, 1954 and in road districts at

30th June, 1954, were as follows :—Bituminous, 4,840 miles ; gravel water-bound, 13,989 miles ; other constructed surfaces, 1,833 miles ; formed only, 34,229 miles ; unprepared, 28,167 miles (incomplete) ; total 83,058 miles.

The lengths of declared roads at 30th June, 1954, were :—Main roads, 3,178 miles ; important secondary roads, 7,232 miles ; developmental roads, 11,331 miles ; total, 21,741 miles.

(iii) *Main Roads Department.* During the year 1953-54 the activities of the Department included :—clearing, 1,287 miles ; forming 1,431 miles ; gravelling, 968 miles ; reconditioning 2,377 miles ; stabilizing, 180 miles ; side drains, 85 miles. In addition lengths of tar and bitumen work performed aggregated 689 miles. Bridges constructed numbered 20. Work commenced during the year on the timber bridge over the Murray River at Pinjarra which is a vital link in the road system between the Perth Metropolitan area and the south-west of the State. When completed the bridge will be 320 feet long and 30 feet wide. Construction of the Wyndham-Ord River-Nicholson road was continued during 1953-54.

(iv) *Receipts and Payments—Combined Road Funds.* The following table shows the combined transactions of the Main Roads Trust Account, the Main Roads Contributions Trust Account, the Metropolitan Traffic Trust Account, and the Commonwealth Aid Roads and Works Trust Accounts during the years ended 30th June, 1939 and 1951 to 1954.

## ROAD FUNDS, WESTERN AUSTRALIA : RECEIPTS AND PAYMENTS.

(£.)

Item.	1938-39. (a)	1950-51.	1951-52.	1952-53.	1953-54.
RECEIPTS.					
Motor Vehicle Registration, Licences, Fees, Fines, etc. ..	218,962	394,887	427,432	472,477	523,495
Commonwealth Aid Roads and Works Acts ..	823,162	2,476,903	2,861,389	2,886,672	3,212,454
Recoups from Local Authorities, etc. ..	1,958	82,467	209,352	210,777	199,591
Other ..		2,396	22,572	43,129	116,373
Total ..	1,041,082	2,956,653	3,520,745	3,613,055	4,051,913
PAYMENTS.					
Construction and Reconstruction of Roads and Bridges ..	922,756	2,203,645	2,527,612	3,079,210	2,492,320
Maintenance ..		180,996	245,558	258,289	214,217
Grants to Local Authorities, etc. ..	143,544	243,492	260,492	273,796	295,713
Transfer to State Consolidated Revenue ..	..	76,337	70,272	70,000	70,000
Interest, Debt Redemption and Exchange—State Consolidated Revenue ..	7,616	7,396	7,396	7,396	7,396
Administration ..	52,176	41,951	44,682	68,703	47,583
Plant, Machinery, etc. ..	..	..	277,660	502,444	276,686
Other ..	19,181	..	415,359	640,478	540,945
Total ..	1,145,273	2,753,817	3,849,031	4,900,316	3,944,860

(a) Figures not completely comparable with those for following years. Includes Transport Co-ordination Trust Account.

7. *Tasmania.*—(i) *General.* Under the Transport Act 1938, which came into operation on 1st July, 1939, the Transport Commission was constituted to co-ordinate, regulate, control, and improve the means of, and facilities for, transport by road, rail or air within the State. Revenues at its disposal for road and motor traffic purposes are the Commonwealth Aid Roads and Works grants, motor vehicle registration fees and tax, and licensing fees for drivers and public motor vehicles. Under the Roads and Jetties Act 1944, which provides for the classification of the whole of the roads of the State so that they will be adequately and efficiently maintained, the cost of maintenance of roads classified as State highways, tourist roads and developmental roads is borne by the Transport Commission. It is also responsible for a proportion of the cost of maintenance of main and secondary roads. Except in special cases, municipal councils bear the cost

of maintaining country roads and a proportion of the cost of main and secondary roads. The cost of construction of roads and bridges in Tasmania is borne almost entirely by the State Government. The expenditure of the Public Works Department (the construction and maintenance authority for the Transport Commission) during 1953-54 on roads, tracks and bridges amounted to £2,216,837 of which £1,341,022 was charged to road funds, £38,972 to revenue, £731,962 to loan and £104,881 to other funds.

As from 1st July, 1951 certain functions with respect to the construction and maintenance of roads and the vesting and control of certain plant were transferred from the Transport Commission to the Minister for Lands and Works. The existing Road Account and Commonwealth Aid Roads and Works Account in the books of the Transport Commission were closed and a new Fund—the State Highways Trust Fund—was opened in the Treasury books.

(ii) *Length of Roads.* (a) *Classified Roads.* The mileages of classified roads in Tasmania at 30th June, 1954 were as follows:—State highways, 1,161 miles; main roads, 651 miles; secondary roads, 186 miles; tourist roads, 45 miles; developmental roads, 50 miles; subsidized roads, 92 miles; total 2,185 miles. Country roads totalled more than 10,000 miles. The mileages of sealed roads, and their proportions to the respective totals, were:—State highways, 571 miles (49 per cent.); main roads, 196 miles (30 per cent.); secondary and other roads, 14 miles (7 per cent.); total, 781 miles (36 per cent. of all classified roads, and 6 per cent. of all roads, in Tasmania).

(b) *Composition of Roads.* The length of all roads in Tasmania, including those with surfaces of lower grade, at 30th June, 1954, was as follows:—Bituminous, 1,031 miles; concrete, 20 miles; granite, limestone, etc., water-bound, 9,079 miles; surfaces of lower grade, 2,918 miles; total, 13,048 miles.

(iii) *Receipts and Payments—Combined Road Funds.* The table hereunder shows particulars of the receipts and payments of combined Road Funds and Commonwealth Aid Roads and Works Funds under the control of the Transport Commission for the years 1939-40 and 1950-51 to 1953-54:—

### ROAD FUNDS, TASMANIA : RECEIPTS AND PAYMENTS.

(£.)

Item.	1939-40. (a)	1950-51.	1951-52.	1952-53.	1953-54.
RECEIPTS.					
Motor Vehicle Taxation and Registration, Licences, Fees, Fines, etc. . . . .	193,165	364,708	305,352	432,738	450,962
Commonwealth Aid Roads and Works Acts . . . . .	220,241	640,824	739,989	745,985	830,922
Recoups from Local Authorities, etc. . . . .	..	9,176	9,249	11,539	10,076
State Loan Fund . . . . .	..	495,914	577,931	494,125	825,502
Hire of Plant . . . . .	..	400,214	551,202	553,678	741,383
Other . . . . .	719	57,364	98,071	152,556	115,064
Total . . . . .	414,125	1,968,200	2,281,794	2,390,621	2,973,909
PAYMENTS.					
Construction and Reconstruction of Roads and Bridges . . . . .	130,924	621,905	689,370	716,223	1,070,414
Maintenance . . . . .	113,199	620,288	627,785	768,395	977,403
Jetties, etc. . . . .	22,467	..	..	..	..
Other works connected with Transport . . . . .	5,748	29,928	21,870	15,566	9,823
Grants to Local Authorities, etc. . . . .	..	4,663	2,256	2,762	3,671
Administration . . . . .	15,053	73,646	51,979	58,736	56,807
Purchase, Hire and Maintenance of Plant . . . . .	(b)	539,673	600,344	586,409	809,546
Other . . . . .	31,894	71,244	156,358	120,925	—22,558
Total . . . . .	319,285	1,961,349	2,149,962	2,269,016	2,905,106

(a) First year of operation of Transport Commission. Figures not completely comparable with those for following years. (b) Not available, included with other.

NOTE.—Minus sign (—) indicates an excess of credits.

8. *Summary of Roads used for General Traffic.*—(i) *Proclaimed or Declared Roads.* The table hereunder is a summary of the roads proclaimed or declared under the Acts of the several States relative to the operations of the central road authorities, and shows the lengths of various classes proclaimed or declared as at 30th June, 1954. These proclaimed or declared roads are those for which the central road authority assumes responsibility under the Act for the whole, or a proportion, of the cost of construction and/or maintenance, the extent varying from State to State and with the class and locality of the roads. Before proclamation of a main road, consideration is given, in general, to the following points:—availability of funds; whether the road is, or will be, within one of several classes of main trunk routes; whether the district is, or will be, sufficiently served by railways. Provision is also made in some States for the declaration of roads other than main roads. The absence of a particular class in any State does not necessarily imply that there are no roads within that State that might be so classified; the classes are restricted only to roads proclaimed or declared under the Acts. A further point to make is that, through various causes, e.g. insufficiency of funds, man-power or materials, etc., construction or maintenance may not keep pace with gazettals of mileages, and that therefore the condition of a road may not match its status.

PROCLAIMED OR DECLARED ROADS : LENGTHS, 30th JUNE, 1954.

(Miles.)

Class of Road.	N.S.W.	Vic. (a)	Q'land.	S. Aust. (a)	W. Aust.	Tas.	Total.
State highways .. ..	6,528	3,849 } 9,792	7,772	8,140	3,178	1,161 } 651	69,032
Trunk roads .. ..	4,229		11,198				
Ordinary main roads .. ..	12,534						
<b>Total Main Roads .. ..</b>	<b>23,291</b>	<b>13,641</b>	<b>18,970</b>	<b>8,140</b>	<b>3,178</b>	<b>1,812</b>	<b>69,032</b>
Secondary roads .. ..	77	..	648	..	7,232	186	8,143
Developmental roads .. ..	2,934	..	246	..	11,331	50	14,501
Tourist roads .. ..	..	432	298	..	..	45	775
Other roads .. ..	..	(b) 375	(c) 888	..	..	(d) 92	1,355
<b>Total Other Roads .. ..</b>	<b>3,011</b>	<b>807</b>	<b>2,080</b>	<b>..</b>	<b>18,563</b>	<b>373</b>	<b>24,834</b>
<b>Grand Total .. ..</b>	<b>26,302</b>	<b>14,448</b>	<b>21,050</b>	<b>8,140</b>	<b>21,741</b>	<b>2,185</b>	<b>93,866</b>

(a) As at 30th June, 1953. (b) Forest roads. (c) Includes mining access roads, 574 miles; farmers' roads, 312 miles; tourist tracks, 2 miles. (d) Subsidized roads.

(ii) *Composition of Roads.* The following table represents an attempt to classify all the roads used for general traffic in Australia, at the latest dates available, according to States and Territories and to certain broad composition groups. The results are not entirely satisfactory, (i) because it is doubtful whether the whole of Australia is covered, (ii) because the dates of reference differ, and (iii) because the figures constituting each group are not wholly comparable for the States and Territories. It is hoped, however, despite these defects, that the table will provide an approximate and general idea of the main types of roads in Australia.

The data in the table for the States are obtained from the State Government Statisticians, and are derived mainly from local government sources. Unincorporated areas in some States are probably excluded and the figures on the returns supplied by the local government authorities are in some cases of doubtful accuracy. Details of the composition of roads, as far as they are available, vary to such an extent that it is considered preferable to show here only major divisions.

Groups 1-4 as shown in the table include, respectively, the following types of composition :—

1. *Wood or Stone.* Wood blocks ; stone paved.
2. *Concrete.* Cement concrete ; asphaltic concrete ; bituminous concrete ; sheet asphalt on concrete base.
3. *Bituminous.* Tar or bituminous macadam ; tar and bituminous surface seal ; surfaced water-bound macadam or gravel ; bituminous or cement penetration.
4. *Macadam and Other.* Water-bound macadam ; granite, limestone, and blast-furnace slag, water-bound ; water-bound gravel ; gravel or crushed rock ; metalled (gravel or rubble) ; gravel, sand and hard loam pavements.

Groups 5 and 6 include roads so-called mainly because they are used for general traffic, irrespective of their surfaces, prepared or otherwise.

It will be noticed that some of the terms used above are practically synonymous. Such terms are, of course, not used by any one State, but are the classifications adopted by different States.

For details of any particular State, see the respective paragraphs in the preceding pages.

#### ALL ROADS USED FOR GENERAL TRAFFIC : LENGTHS. (Miles.)

Composition of Road.	N.S.W. 30th June, 1954.	Vic. 30th Sept., 1948.	Q'land. 30th June, 1954.	S. Aust. 30th June, 1953.	W. Aust. 1954. (a)	Tas. 30th June, 1954.	N. Terr. 30th June, 1954.	A.C.T. 30th June, 1954.	Total.
1. Wood or stone ..	..	62	..	6	..	..	..	..	68
2. Concrete ..	605	352	100	605	..	20	..	3	1,685
3. Bituminous ..	10,126	10,241	5,612	2,914	4,840	1,031	1,287	161	36,212
4. Macadam and other ..	41,342	28,418	12,744	16,820	15,822	9,079	164	167	124,565
5. Formed only ..	27,279	23,901	44,341	12,956	34,229	2,918	8,944	217	354,110
6. Cleared, or natural surface, only ..	45,677	38,437	62,895	22,270	28,167		1 879	..	
<b>Total ..</b>	<b>125,029</b>	<b>101,411</b>	<b>125,692</b>	<b>55,580</b>	<b>83,058</b>	<b>13,048</b>	<b>12,274</b>	<b>548</b>	<b>516,640</b>

(a) Municipalities, 31st October and Road Districts, 30th June.

It will be seen from the foregoing table that a little more than one-quarter of the road lengths of Australia have actually been constructed, the remainder, for the greater part, being in little more than the natural state. The percentages for each group are as follows :—Group 1, 0.01 ; group 2, 0.33 ; group 3, 7.01 ; group 4, 24.11 ; groups 5 and 6, 68.54. The percentage of constructed lengths to total length in each State is as follows :—New South Wales, 42 ; Victoria, 39 ; Queensland, 15 ; South Australia, 37 ; Western Australia, 25 ; Tasmania, 77 ; Northern Territory, 12 ; Australian Capital Territory, 60. Comparisons between the States should be made with caution, however, because, in addition to the defects enumerated at the beginning of this section, factors such as the area, physiography, density and distribution of population, nature of economic activity, other facilities for transport, etc., in each State must be taken into account.

9. *Summary of Expenditure on Roads and Bridges.*—(i) *General.* In most States there are three classes of authorities—the State Government, the central road authority, and the numerous local government bodies. Most of these authorities may expend money either directly on road construction or indirectly by means of grants and miscellaneous payments to other authorities. Insufficient information is given in the



accounts of many authorities to permit the exclusion of these indirect payments which would, if included in the aggregate, duplicate the expenditure. In addition a number of authorities are not able to supply separate information concerning their expenditure on roads. For these reasons it has not been possible up to the present, to compile statistics of the aggregate expenditure on roads.

The two paragraphs following therefore represent only: (a) aggregate expenditure from the various State road funds referred to in the foregoing pages, and (b) loan fund expenditure by State Governments. Expenditure by local government bodies is not included. Paragraph 8., Finances, of § 2. Local Government Authorities, contains some particulars of local government revenue and expenditure on roads, streets and bridges (*see* pages 671 and 674).

(ii) *Aggregate Expenditure from State Road Funds.* The following table shows expenditure on the construction and maintenance of roads, including payments to local government bodies, by each State during the years 1938-39 and 1949-50 to 1953-54, as summarized from the foregoing sections. Expenditure on administration, debt charges, Commonwealth defence works, payments to State consolidated revenues, and on plant and materials is not included. In some instances expenditure on works other than roads and bridges is included. Figures are not completely comparable as between States, and, in some States, as from year to year.

**ROADS AND BRIDGES: AGGREGATE EXPENDITURE FROM ROAD FUNDS.**  
(£'000.)

Year ended 30th June—	N.S.W.(a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
1939 ..	3,257	2,339	2,405	(b) 1,150	1,067	(c) 250	10,468
1950 ..	5,160	3,185	3,212	2,067	1,872	791	16,287
1951 ..	6,063	5,362	4,380	2,174	2,628	1,277	21,884
1952 ..	8,546	5,836	6,650	3,048	3,034	1,341	28,455
1953 ..	8,885	6,023	5,296	3,123	3,611	1,503	28,441
1954 ..	11,505	6,686	5,536	4,405	3,002	2,061	33,195

(a) Excludes Sydney Harbour Bridge.  
1939-40.

(b) Includes expenditure on plant.

(c) Year

The foregoing particulars do not represent the total expenditure on roads and bridges in each State. To obtain this information additions must be made on account of (a) State Government expenditure from revenue and loan through Departments or authorities other than the Central Road Authority and (b) local government expenditure from revenue and loan, while, on the other hand, allowances must be made for grants and miscellaneous payments to other authorities (*see* (i) above).

(iii) *State Net Loan Expenditure.* In recent years, expenditure from State loan funds on roads and bridges has not been large, and it would appear, also, that a considerable proportion passes through the funds of the central road authorities and is therefore included in the figures of their financial operations in the foregoing sections. Gross loan expenditure by all State Governments during 1953-54 amounted to over £2,000,000, while net expenditure was about £350,000 less. Aggregate net loan expenditure on roads and bridges in each State to 30th June, 1954 amounted to the following approximate sums:—New South Wales, £22,000,000; Victoria, £18,000,000; Queensland, £11,000,000; South Australia, £5,000,000; Western Australia, £3,000,000; Tasmania, £8,000,000; total, £67,000,000.

### § 5. Water Supply, Sewerage and Drainage.

NOTE.—See also Chapter XI.—Water Conservation and Irrigation.

1. New South Wales.—(i) *General*. The two largest domestic water supply and sewerage systems are controlled by statutory boards each consisting of a president and a vice-president appointed by the State Government and five members elected by local councils. These are (a) the Metropolitan Water, Sewerage and Drainage Board, which administers the systems in the County of Cumberland, i.e., in Sydney and in the surrounding districts, and, in addition, has jurisdiction over territory extending along the South Coast beyond Wollongong to Lake Illawarra, and (b) the Hunter District Water Board, serving the Newcastle area. At Broken Hill a similar board includes a representative of the mining companies. Other systems, apart from irrigation projects and water storage systems administered by the State Government, are controlled by county, municipal and shire councils.

(ii) *Water Supply—to 30th June, 1954*. (a) *Metropolitan*. The storage reservoirs of the metropolitan system, with a combined available capacity of 124,959 million gallons, drain catchment areas of 376 square miles (Upper Nepean, 347 square miles and Woronora, 29 square miles). Water is drawn also from the Warragamba River, with a catchment of 3,383 square miles. This system is being developed, and building has commenced on a dam to have an overall height of 415 feet (greatest depth of water 340 feet) having a storage capacity of 460,000 million gallons and giving a net safe draught estimated at 263 million gallons per day and in addition 11 million gallons per day for riparian purposes. The existing temporary storage is supplied by a weir 50 feet high with a maximum storage of 579 million gallons. At 30th June, 1954 there were 107 service reservoirs in use with a combined capacity of 545.6 million gallons. Rating for water for 1953-54 was 10d. in the £1 of assessed annual value and the charge for water measured by meters 1s. 9d. per 1,000 gallons.

(b) *Newcastle*. The water supply is drawn from two sources (1) the Chichester Reservoir, with a storage capacity of about 5,000 million gallons and draining a catchment of 76 square miles, and (2) the Tomago Sandbeds, which extend northerly along the coast towards Port Stephens. Service reservoirs and tanks distributed throughout the Water Supply District have a total storage capacity of 106 million gallons. Water rating for 1953-54 was 1s. 8d. in the £1 on assessed annual value. The price of water to domestic and industrial consumers is 2s. per 1,000 gallons.

(c) *Water Supplied, etc.* The following tables show, for the Sydney and Newcastle systems, the number of properties, the estimated population supplied, and other details for the years 1938-39 and 1949-50 to 1953-54 :—

WATER SUPPLY, SYDNEY(a) : SERVICES.

Year.	Improved Properties for which Water Main available.	Estimated Population Supplied.	Average Daily Consumption.	Total Consumption for the Year.	Average Daily Consumption.		Length of Mains.	Number of Meters.
					Per Property.	Per Head of Estimated Population.		
	No.		Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	
1938-39 ..	350,161	1,466,000	106.3	38,790	304	72.5	4,539	126,754
1949-50 ..	428,392	1,870,000	130.8	47,735	305	72.1	4,992	196,121
1950-51 ..	442,913	1,940,000	138.9	50,689	314	71.6	5,114	208,712
1951-52 ..	461,294	2,000,000	155.9	57,069	338	80.0	5,252	227,850
1952-53 ..	478,598	2,032,000	149.6	54,621	313	73.6	5,357	246,383
1953-54 ..	496,025	2,069,000	163.9	59,810	330	79.2	5,502	270,230

(a) Includes part of South Coast.

## WATER SUPPLY, NEWCASTLE : SERVICES.

Year.	Properties Supplied.	Estimated Population Supplied.	Average Daily Supply.	Total Supply for Year.	Average Daily Supply.		Length of Mains.
					Per Property.	Per Head of Estimated Population.	
	No.		Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.
1938-39.. ..	48,370	193,480	11.9	4,331	245	61.3	936
1949-50.. ..	63,289	247,992	19.6	7,176	310	79.3	1,215
1950-51.. ..	65,445	261,780	22.3	8,131	340	85.1	1,234
1951-52.. ..	67,122	268,488	25.1	9,144	373	93.1	1,257
1952-53.. ..	69,244	276,976	23.9	8,719	345	86.3	1,262
1953-54.. ..	71,307	285,228	25.5	9,415	358	90.4	1,284

(iii) *Sewerage and Drainage—to 30th June, 1954.* (a) *Metropolitan.* Sydney and suburbs are served by 3 major sewerage systems and 5 minor systems consisting of 6 outfalls discharging direct into the Pacific Ocean and 2 treatment works. A further treatment works is in course of construction near Kurnell and is designed to serve the whole of the Cronulla Peninsula. In addition 4 centres outside the metropolitan area (Camden, Campbelltown, Liverpool and Wollongong) are served by local treatment works.

Stormwater drainage channels under the Metropolitan Water, Sewerage and Drainage Board's control at 30th June, 1954 were 175 miles long. Sewerage rating for 1953-54 was 10½d. in the £1 of assessed annual value and drainage rating ¾d. in the £1.

(b) *Newcastle.* The main sewerage system of the Newcastle area discharges into the Pacific Ocean at Merewether Gulf. In some of the outlying districts treatment works have been installed.

Sewerage rates for 1953-54 were 1s. 3d. in the £1 of assessed annual value and drainage rates (on certain areas served) 2d. in the £1.

(c) *Particulars of Services.* The following table supplies, for the Metropolitan system, details of sewerage services and stormwater drains as at 30th June, 1939 and 1950 to 1954.

## SEWERAGE AND DRAINAGE, METROPOLITAN(a) : SERVICES.

At 30th June—				Improved Properties for which Sewer Available.	Estimated Population Served.	Length of Sewers.	Length of Stormwater Channels.
				No.		Miles.	Miles.
1939	..	..	..	254,632	1,066,000	2,561	87
1950	..	..	..	298,996	1,306,000	2,899	154
1951	..	..	..	303,508	1,380,000	2,951	173
1952	..	..	..	309,995	1,400,000	3,000	176
1953	..	..	..	316,439	1,427,000	3,055	174
1954	..	..	..	324,737	1,454,000	3,163	175

(a) Includes part of South Coast.

At 30th June, 1954, 47,497 premises had been connected to the Hunter District Water Board's sewerage system (Newcastle area). The total length of sewers under the Board's control was 633 miles, and the length of drains was 42 miles.

(iv) *Finances, Sydney and Newcastle Systems.* The following table shows the debt, revenue and expenditure of the Metropolitan Water, Sewerage and Drainage Board and the Hunter District Water Board for each of the services of water supply, sewerage and drainage during 1953-54 and for the three services combined during the years 1938-39 and 1949-50 to 1952-53.

**WATER SUPPLY, SEWERAGE AND DRAINAGE, METROPOLITAN AND  
NEWCASTLE : FINANCES.**

(£.)

Year.	Capital Debt at 30th June.	Revenue.	Expenditure.				Surplus (+) or Deficit (-).
			Working Expenses. (a)	Interest and Exchange.	Debt Redemption.	Total.	
METROPOLITAN.(b)							
1953-54—							
Water ..	57,708,754	4,874,646	2,487,731	1,065,890	404,403	4,858,024	+ 16,622
Sewerage..	25,525,737	2,875,320	1,785,672	872,124	186,436	2,844,232	+ 31,088
Drainage ..	1,240,460	141,050	92,523	39,990	7,795	140,308	+ 742
Total, 1953-54	84,474,951	7,891,016	4,365,926	2,878,004	598,634	7,842,564	+ 48,452
1952-53	77,117,666	6,672,577	3,494,464	2,618,630	554,435	6,667,529	+ 5,048
1951-52	70,670,899	6,199,094	3,313,807	2,343,923	540,660	6,198,410	+ 684
1950-51	64,350,326	5,410,687	2,740,286	2,190,333	475,552	5,406,171	+ 4,516
1949-50	59,918,417	5,051,876	2,488,623	2,092,890	435,660	5,017,173	+ 34,703
1938-39	43,769,741	2,926,694	957,422	1,727,708	241,564	2,926,694	..

**NEWCASTLE.**

1953-54—							
Water ..	7,358,708	877,978	584,730	228,860	46,470	860,060	+ 17,915
Sewerage ..	2,910,690	341,513	224,353	98,226	18,664	341,243	+ 270
Drainage ..	169,619	25,953	18,938	5,542	1,273	25,753	+ 200
Total, 1953-54	10,439,017	1,245,444	828,021	332,628	66,407	1,227,056	+ 18,388
1952-53	9,431,309	1,119,775	726,137	294,769	59,747	1,080,653	+ 39,122
1951-52	8,794,710	858,729	572,382	278,211	55,888	906,481	+ 47,752
1950-51	8,139,512	765,790	442,239	275,875	52,479	770,593	+ 4,803
1949-50	7,767,566	695,548	359,508	285,145	50,766	695,419	+ 129
1938-39	4,574,880	385,732	167,620	188,185	20,886	376,691	+ 9,041

(a) Includes provision for renewals, long service leave, loss on exchange, etc. (b) Includes part of South Coast. (c) Excludes non-interest bearing capital in respect of stormwater drains transferred from Public Works Department—£2,199,223 at 30th June, 1954.

(v) *Country Water Supply and Sewerage Systems.* At 31st December, 1952, country water supply services were conducted or under construction by 64 municipalities, 60 shires and 4 county councils, and country sewerage services by 58 municipalities and 18 shires. The capital indebtedness of these schemes was £12,674,357 at 31st December, 1952, namely, £8,773,311 for water and £3,901,046 for sewerage. Of the foregoing amounts, Government advances amounted to £419,589. Debt of the municipalities amounted to £7,599,338, shires to £2,557,849 and county councils to £2,517,170. Aggregate income and expenditure, respectively, amounted to £2,378,626 and £1,688,177 in 1952.

(vi) *Other Water Supply and Sewerage Systems.* The water supply and sewerage services for Broken Hill are operated by a statutory board, the Broken Hill Water Board. Its capital indebtedness at 31st December, 1953 was £2,810,946. In 1953 income (excluding subsidies, State Government £101,279 and Mining Companies £286,217) amounted to £164,504 and expenditure (excluding debt redemption £119,627) amounted to £428,362.

The following country water supply systems—South-West Tablelands, Junee and Fish River—are administered by the Department of Public Works. These supply water in bulk to municipalities and shires, the Railways Department, and other large consumers; only a small quantity is sold directly to private consumers. The capital indebtedness of these systems was £2,831,560 at 31st December, 1953.

There are also the Mulwala Water Supply and Sewerage Service constructed as an urgent war-time work for the Commonwealth, and the Bethungra Water Supply System administered by the Department of Public Works in conjunction with the Junee supply.

2. Victoria.—(i) *Melbourne and Metropolitan Board of Works—to 30th June, 1954.*

(a) *General.* The Board was established by Act of Parliament on 20th December, 1890 and entered upon its duties on 18th March, 1891. It consists of 50 members, including the chairman, who is elected every four years by the other members. The other 49 members, who are called commissioners, are from time to time elected by the councils of the municipal districts wholly or partly within the metropolis. The principal functions of the Board are to control and manage the metropolitan water supply system; to provide the metropolis with an efficient system of main and general sewerage; to deal with main drains and main drainage works; and to control and manage the rivers, creeks and watercourses within the metropolis.

(b) *Water Supply.* There are five storage reservoirs serving the metropolitan area—Yan Yean, 7,234 million gallons (available for consumption, 6,605 million gallons); Toorourrong, 60 million gallons; Maroondah, 6,274 million gallons (4,855 million gallons); O'Shannassy, 930 million gallons; Silvan, 8,853 million gallons (8,823 million gallons); total 23,351 million gallons (21,273 million gallons). Service reservoirs number 25, with a total capacity of 262 million gallons. Two major projects are under construction. One is an 18 mile conduit to carry water from the Silvan Reservoir to the existing Mt. Waverley service reservoir and to a new service reservoir which is to be built south of Glen Waverley and which when completed will be capable of supplying an additional 110 million gallons a day. The other project, which was approved by the Board in 1946, consists of a dam, 293 feet high, which will impound 44,000 million gallons of water, on the River Yarra, immediately upstream from the confluence of the Yarra and Doctors Creek, and work on the project is proceeding. This work is estimated to cost £12,628,000.

The water rate levied by the Board in 1953-54 was 8d. in the £1 on the net annual value of the property served, and from 1st July, 1953, the charge for water supplied by measure in excess of the quantity which, at 1s. per 1,000 gallons, would produce an amount equal to the water rate payable on the property, was increased from 1s. 3d. to 1s. 6d. The following table shows particulars of Melbourne metropolitan water supply services for the years 1938-39 and 1949-50 to 1953-54.

WATER SUPPLY, MELBOURNE : SERVICES.

Year.	Number of Houses Supplied.	Estimated Population Supplied.	Average Daily Consumption.	Total Consumption for the Year.	Average Daily Consumption.		Length of Aqueducts, etc., Mains and Reti-culation.	Number of Meters.
					Per House.	Per Head of Estimated Population.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	
1938-39 ..	285,408	1,133,000	66.9	24,408	234	59.0	3.234	189,617
1949-50 ..	342,742	1,363,000	91.7	33,458	267	67.3	3.875	229,238
1950-51 ..	354,415	1,409,000	102.0	37,225	288	72.4	3.966	235,883
1951-52 ..	364,248	1,488,000	107.4	39,203	295	74.2	4.075	256,462
1952-53 ..	378,439	1,505,000	102.6	37,471	271	68.2	4.134	264,916
1953-54 ..	390,035	1,551,000	110.6	40,354	264	71.3	4.213	266,393

(c) *Sewerage and Drainage.* Particulars of sewerage and drainage services for 1938-39 and 1949-50 to 1953-54 are shown below. The rate levied in 1953-54 in respect of sewerage was 1s. 1d. in the £1 on the net annual value of the property served. The drainage rate was 1d. in the £1.

## SEWERAGE AND DRAINAGE, MELBOURNE : SERVICES.

Year.	Number of Houses for which Sewers are Provided.	Estimated Population for which Sewers are Provided.	Average Daily Pumping.	Total Sewage Pumped for the Year.	Average Daily Pumping.		Length of Sewers, etc.	Length of Main Drains.
					Per House.	Per Head of Estimated Population.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	Miles.
1938-39 ..	269,411	1,070,000	48.2	17,601	179.0	45.1	2,586	97
1949-50 ..	320,006	1,272,000	66.4	24,251	207.5	52.2	2,880	126
1950-51 ..	321,548	1,278,000	67.1	24,491	208.7	52.5	2,927	128
1951-52 ..	329,872	1,311,000	67.1	24,490	203.4	51.2	2,953	128
1952-53 ..	338,314	1,345,000	73.1	26,692	216.1	54.3	2,989	131
1953-54 ..	345,370	1,373,000	70.1	25,599	203.0	51.1	3,019	134

The metropolitan sewerage system consists of the Main system (serving an area of 67,433 acres) and three subsidiary systems—the Sunshine system (serving an area of 941 acres), the Kew system (serving an area of 103 acres) and the South-eastern system (serving an area of 2,292 acres in Cheltenham, Parkdale, Mentone and Mordialloc). The Metropolitan Sewage Farm, 26,073 acres in extent and situated about 24 miles south-west of Melbourne beyond the township of Werribee, serves to purify and dispose of approximately 95 per cent. of the sewage flow of the metropolis before its discharge into Port Phillip Bay. The total capital cost (less depreciation) of the Farm to 30th June, 1954 was £2,608,337. Revenue during 1953-54 amounted to £87,833, cost of sewage disposal £185,525, trading expenses £84,770, interest £102,872, and net cost of sewerage purification £285,334. These financial particulars are included in the sewerage items of the summary below.

(d) *Finances.* The following table provides a summary, for the year 1953-54 of the financial operations of the three services conducted by the Melbourne and Metropolitan Board of Works.

## MELBOURNE AND METROPOLITAN BOARD OF WORKS : FINANCES, 1953-54.

(£.)

Service, etc.	Capital Cost at 30th June. (a)	Revenue.	Expenditure.				Surplus (+) or Deficit (-).
			Working Expenses.	Interest and Exchange.	Debt Redemption.	Total.	
Water ..	25,564,214	2,271,269	924,326	965,799	..	1,890,125	+ 381,144
Sewerage ..	20,815,248	2,265,331	977,764	828,299	..	1,806,063	+ 459,268
Drainage ..	3,776,765	175,933	78,889	116,632	..	195,521	- 19,588
General (b) ..	..	..	333,157	..	106,796	439,948	- 439,948
Total ..	50,150,227	4,712,533	2,314,131	1,910,730	106,796	4,331,657	+ 380,876

(a) Includes depreciation, £48,031. Total loan indebtedness—1953-54, £44,595,570; (b) Statutory and general expenditure not distributed over Services.

The following table shows the financial operations of the Melbourne and Metropolitan Board of Works (all services combined) for the years 1938-39 and 1949-50 to 1953-54:—

## MELBOURNE AND METROPOLITAN BOARD OF WORKS: FINANCES.

(£.)

Year.	Capital Cost at 30th June.	Revenue.	Expenditure.				Surplus(+) or Deficit(-).
			Working Expenses.	Interest and Exchange.	Debt Redemption.	Total.	
1938-39 .. ..	27,598,603	2,214,295	762,558	1,316,603	64,269	2,143,430	+ 70,865
1949-50 .. ..	36,453,892	2,924,329	1,616,993	1,324,342	73,785	3,015,030	- 99,701
1950-51 .. ..	39,244,030	3,278,641	1,782,356	1,422,196	81,607	3,286,159	- 7,518
1951-52 .. ..	43,106,705	3,590,571	2,011,265	1,539,009	93,398	3,653,672	- 63,101
1952-53 .. ..	46,713,093	3,862,048	2,230,431	1,691,613	101,564	4,023,608	- 161,560
1953-54 .. ..	50,453,227	4,712,533	2,314,131	1,910,730	100,700	4,331,057	+ 381,676

(ii) *Geelong Waterworks and Sewerage Trust.* (a) *General.* The Geelong Waterworks and Sewerage Trust was constituted in 1908 and reconstituted under the Geelong Waterworks and Sewerage Act in 1910. It was further reconstituted in September, 1950 to include a Government nominee (Chairman) and provision was made for a commissioner to be elected by the ratepayers of the Shire of Corio, making a total of seven commissioners instead of five as formerly. The amount of loan money which may be raised is limited to £1,500,000 for water supply undertakings, £1,250,000 for sewerage undertakings, and £270,000 for sewerage installation to properties under the deferred payment system. The population supplied is estimated by the Trust at 72,100. This and other general information relates to 30th June, 1954.

(b) *Water Supply.* The catchment area is about 16,000 acres. There are five storage reservoirs and nine service basins whose total storage capacity is 2,746 million gallons. The length of water mains and reticulation is 399 miles. In addition, the State Rivers and Water Supply Commission has made available a supplementary supply of a minimum quantity of 545 million gallons of water per annum from the Bellarine Peninsula System. The total expenditure on water supply to 30th June, 1954 was £1,333,712. Expenditure for 1953-54 comprised £73,275 for working expenses and £69,653 for interest, redemption and reserves, while revenue amounted to £155,881. The sinking fund appropriations at June, 1954 amounted to £142,433. The replacement and contingencies reserve amounted to £209,175. There is a water rate of 1s. 5d. in the £1 (with minima of 5s. for unbuilt-on land and £1 for tenements) on the net annual value of ratable properties.

(c) *Sewerage Works.* The sewerage scheme consists of a main outfall sewer to the ocean at Black Rock, about 9 miles from Geelong, and 186 miles of main and reticulation sewers. The sewerage area is 10,219 acres, and the number of buildings within the sewered areas is 15,789 of which 15,777 have been connected. The total expenditure to 30th June, 1954 on sewerage works was £980,414, and on the cost of sewerage installation under deferred payment conditions £260,349 of which £1,809 was outstanding. The revenue in 1953-54 amounted to £99,089 and the expenditure comprised £40,064 on working expenses and £50,165 on interest, redemption and reserves. Sinking fund appropriations at June, 1954 were £122,080. Replacement and contingencies reserve amounted to £199,295. A general rate of 1s. 4d. in the £1 is levied on the net annual value of ratable properties.

(iii) *The Ballarat Water Commission and the Ballarat Sewerage Authority.* (a) *General.* The Ballarat Water Commission was constituted on 1st July, 1880, and the Ballarat Sewerage Authority on 30th November, 1920. The members of the Water Commission constitute the Sewerage Authority. The Commissioners number eight, three (one of whom is chairman) being appointed by the Government, four being elected by the Council of the City of Ballarat and one being elected by the Councils of the Borough of Sebastopol and the Shires of Ballarat, Bungaree, Bunninyong and Grenville. General and financial information given herein relates to the year ended 31st December, 1954.

(b) *Water Supply.* The Water Supply District embraces an area of about 65 square miles, containing a population of about 50,000. The total storage capacity of the seven reservoirs is 5,563 million gallons and the catchment area is 18,695 acres.

The capital cost of construction of the waterworks was £2,068,695 to 31st December, 1954. The liabilities amounted to £1,122,293 at 31st December, 1954 including loans due to the Government totalling £1,072,443. The revenue for the year 1954 was £129,684. Working expenses during 1954 amounted to £77,346 and interest and other charges to £53,692. A rate of 1s. 2d. in the £1 is levied on the net annual value of all ratable properties, with a minimum of £1 per annum for land on which there is a building or water supply.

(c) *Sewerage.* The Ballarat sewerage district embraces the City of Ballarat and parts of the Shires of Ballarat and Bungaree and the Borough of Sebastopol. Work was commenced in 1922 and up to 31st December, 1954 the Authority had constructed a disposals works, a nightsoil depot, an ejector station and more than 100 miles of sewers. The capital cost of sewerage construction works to 31st December, 1954 was £668,027. The method of sewage disposal is by sedimentation, oxidation and sludge digestion. One hundred and thirty-nine sewered areas had been declared as at 31st December, 1954. Assessments in the sewerage district numbered 15,023, while those in sewered areas numbered 11,557. There were 10,027 buildings connected.

The scheme is financed by debenture-issue loans from various financial institutions. The liabilities on account of loans secured for construction at 31st December, 1954, amounted to £537,788, redemption payments at that date totalling £203,830. An expenditure of £157,122 was incurred for house connexions, the whole of which has been redeemed. Revenue during 1954 amounted to £65,851 and expenditure, including £29,799 on interest and redemption, to £63,293.

A sewerage rate of 1s. 4d. in the £1, with a minimum rate of £2 4s., is levied on the net annual value of any ratable sewered property on which there is a building and £1 on any ratable sewered property on which there is no building.

(iv) *Other Sewerage Authorities.* At 30th June, 1954, 60 sewerage authorities had been constituted under the provisions of the Sewerage Districts Acts in districts outside the areas under the control of the Melbourne and Metropolitan Board of Works and the Geelong Waterworks and Sewerage Trust, and systems were in operation in 30 districts (including five partly operating) serving a population of 229,050 persons.

In addition, sewerage authorities were constituted in a further 30 districts at this date, but their operations had either been suspended or had not commenced.

(v) *Water Supply in Country Towns and Districts.* Most of the country waterworks are controlled by the State Rivers and Water Supply Commission, but in some instances the control is by waterworks trusts or by municipal corporations.

The waterworks controlled by the State Rivers and Water Supply Commission at 30th June, 1954, included 37 large reservoirs and 241 subsidiary reservoirs and service basins with a total storage capacity of 661,785 million gallons (2,430,800 acre feet). Length of channels was 15,027 miles (irrigation, 4,884 miles, domestic and stock 8,049 miles, drainage and flood protection, 2,094 miles) and of pipe lines 1,224 miles. The quantity of water delivered to water users during 1953-54 was 1,011,556 acre feet. The Commission administered 65 rural districts during 1953-54 (29 irrigation districts, 31 waterworks districts, 4 flood protection districts and 1 drainage district), and the reticulated pipe supplies for domestic and industrial purposes in 130 urban districts. In addition, 127 urban districts were administered by waterworks trusts and 16 by local governing bodies. The population served in these groups of urban districts numbered, respectively, 175,310, 339,270 and 100,510 persons. The table below is a summary of the Commission's finances for operations in districts under its control for the years 1938-39 and 1949-50 to 1953-54.



STATE RIVERS AND WATER SUPPLY COMMISSION, VICTORIA : FINANCES.(a)  
(£.)

Year.	Total Loan Capital Expenditure to 30th June.	Receipts.	Payments.				Total.
			Operating Expenses.	Interest on Capital Allotted.	Depreciation.	Debt Redemption.	
1938-39 ..	24,223,037	560,680	476,085	145,105	27,553	4,922	653,665
1949-50 ..	35,041,827	1,433,561	1,519,659	38,117	66,441	3,055	1,627,272
1950-51 ..	41,318,382	1,592,333	1,810,264	37,950	97,425	1,383	1,947,022
1951-52 ..	51,082,707	1,871,810	2,292,995	47,547	92,573	1,497	2,434,612
1952-53 ..	57,464,776	1,989,289	2,669,419	26,555	90,024	3,284	2,789,282
1953-54 ..	65,143,250	2,412,382	2,717,862	75,101	90,616	5,181	2,888,760

(a) Excludes waterworks and river improvement trusts and local governing bodies.

The total loan capital expenditure of waterworks and river improvement trusts and local governing bodies at 30th June, 1954 was £8,767,113, making a grand total of £73,910,363 when added to the figure for works under the control of the Commission. The net loan capital after redemption payments of £2,115,292 was £71,795,071.

The financial operations of the State Rivers and Water Supply Commission form part of the Consolidated Revenue Fund, but are included in this section for convenience. The major proportion of the interest payable is borne by the State and is additional to that shown above. The net expenditure borne by the State during 1953-54 was £3,052,155.

3. Queensland.—(i) *Brisbane City Council*—to 30th June, 1954. (a) *General*. This organization conducts the water supply and sewerage systems of the City of Brisbane. Prior to 1928, water and sewerage activities had been controlled by the Metropolitan Water and Sewerage Board, but were then absorbed by the Brisbane City Council, which also supplies, in bulk, the whole of the water used by the City of Ipswich and the Town of Redcliffe.

(b) *Water Supply*. Water storage facilities comprise the following (available capacities are shown in parentheses):—Somerset Reservoir, 200,000 million gallons (55,000 million gallons); Lake Manchester, 5,806 million gallons (5,725 million gallons); Brisbane River, 543 million gallons (484 million gallons); Pure Water Reservoir, Holt's Hill, 8.3 million gallons (8.3 million gallons); Enoggera Reservoir, 1,000 million gallons (600 million gallons); Gold Creek Reservoir, 407 million gallons (400 million gallons). There are eleven service reservoirs with a capacity of approximately 36.6 million gallons. The Somerset reservoir is under the control of Stanley River Works Board and is a dual purpose project with a designed total holding capacity of 200,000 million gallons, 55,000 million gallons to be for water storage and 145,000 million gallons for flood mitigation. Water rating at 30th June, 1954 was 3½d. in the £1 of unimproved capital value for improved properties, and 2d. in the £1 for vacant lands, with a minimum of £3 10s. and £2 6s. 8d. respectively. The following table is a summary of operations of the complete Brisbane City Council system (metropolitan area, Ipswich and Redcliffe) for the years 1938-39 and 1949-50 to 1953-54 :—

## WATER SUPPLY, BRISBANE(a) : SERVICES.

Year.	Services Connected.	Estimated Population Supplied.	Average Daily Consumption.	Total Consumption for the Year.	Average Daily Consumption.		Length of Trunk and Retention Mains.	Number of Meters.
					Per Service.	Per Head of Estimated Population.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Mill-s.	
1938-39 ..	81,389	345,903	15.9	5,791	195	45.9	1,169	(b)
1949-50 ..	111,363	445,897	26.1	9,540	235	58.6	1,376	52,807
1950-51 ..	117,904	472,145	27.9	10,193	237	60.8	1,429	52,691
1951-52 ..	124,992	489,266	32.4	11,860	259	66.2	1,479	52,496
1952-53 ..	131,895	516,186	31.5	11,486	239	61.0	1,535	52,360
1953-54 ..	139,172	544,183	33.9	12,379	244	62.3	1,581	51,976

(a) Includes Ipswich and Redcliffe.

(b) Not available.

(c) *Sewerage.* The sewage treatment works are situated at Luggage Point on the north bank at the entrance to the Brisbane River. The treatment plan is the activated sludge system, but this has not been put into operation, and since the commencement of pumping operations in 1923 a sedimentation plant only has been used. Sewerage rating at 30th June, 1954 was 2½d. in the £1 of unimproved capital value for improved properties, and 2d. in the £1 for vacant lands, with a minimum of £3 15s. and £3 5s. respectively. The following table is a summary of operations of the Brisbane sewerage scheme for the years 1938-39 and 1949-50 to 1953-54 :—

## SEWERAGE, BRISBANE : SERVICES.

Year.	Premises Connected.	Estimated Population Served.	Total Sewage Pumped for the Year.	Length of Main, Branch, Reticulation, etc., Sewers.
			Mill. gals. (a)	Miles.
1938-39 .. .. .	33,248	149,616		484
1949-50 .. .. .	46,330	189,953	4,967	590
1950-51 .. .. .	47,808	196,013	5,351	608
1951-52 .. .. .	49,368	197,472	4,663	615
1952-53 .. .. .	50,653	202,612	4,791	630
1953-54 .. .. .	51,832	207,328	4,868	647

(a) Not available.

(d) *Finances.* The following table shows particulars of the finances of the water supply and sewerage undertakings of the Brisbane City Council for the years 1938-39 and 1949-50 to 1953-54 :—

## WATER SUPPLY AND SEWERAGE, BRISBANE : FINANCES.

(£.)

Service and Year.	Gross Capital Cost at 30th June.	Revenue.	Expenditure.			Surplus (+) or Deficit (-).
			Working Expenses.	Interest Redemption, etc. Charges.	Total.	
Water Supply—						
1938-39 .. ..	4,849,732	606,244	129,219	280,827	422,366	+ 183,878
1949-50 .. ..	7,579,798	866,366	353,805	276,796	700,237	+ 166,129
1950-51 .. ..	8,116,654	926,954	383,700	333,210	805,903	+ 121,051
1951-52 .. ..	8,915,401	1,036,944	494,136	347,000	979,916	+ 57,028
1952-53 .. ..	9,861,885	1,280,390	587,695	403,349	1,164,278	+ 116,112
1953-54 .. ..	10,672,306	1,326,644	640,838	434,073	1,237,040	+ 89,604
Sewerage—						
1938-39 .. ..	5,992,936	240,963	52,792	403,386	485,974	- 245,011
1949-50 .. ..	8,117,835	412,833	87,100	264,972	379,299	+ 33,534
1950-51 .. ..	8,821,671	483,854	105,928	313,308	472,745	+ 11,109
1951-52 .. ..	9,794,052	499,935	127,417	302,252	467,774	+ 32,161
1952-53 .. ..	10,863,167	591,584	171,614	330,642	564,704	+ 26,880
1953-54 .. ..	11,893,902	603,141	163,397	349,692	552,651	+ 50,490

(ii) *Country Towns.* (a) *Water Supply.* In addition to the City of Brisbane there were, at 30th June, 1953, 107 cities and towns in Queensland provided with water supply systems controlled by municipal and shire councils.

(b) *Sewerage Systems.* At 30th June, 1953, there were 13 cities and towns outside the metropolitan area—Bundaberg, Charleville, Cunnamulla, Goondiwindi, Hughenden, Ipswich, Mackay, Maryborough, Quilpie, Rockhampton, Toowoomba, Townsville and Warwick—with sewerage systems. Sewerage systems were in course of construction at Mt. Isa, Dalby, Barcaldine and Longreach.

(c) *Finances.* The receipts (other than loan) of water undertakings controlled by the cities and towns referred to above amounted to £2,880,173 in 1952-53. Expenditure amounted to £2,699,087, including £270,024 for debt charges. In addition, loan expenditure amounted to £1,466,640.

Finances of sewerage undertakings are incorporated in council general funds and are not available separately.

4. South Australia.—(i) *General.* The water supply and sewerage systems in this State were constructed and are maintained by the Engineering and Water Supply Department under the control of the Minister of Works. The works controlled comprise the Adelaide, Barossa, Baroota Creek, Beetaloo, Bundaleer, Tod River, Warren and other country water districts systems, the Morgan-Whyalla water supply system, the Adelaide metropolitan sewerage system, the Murray River Weirs, water conservation, and the Metropolitan Flood Waters Scheme.

(ii) *South Australian Waterworks. (a) Services.* The table hereunder shows particulars of the area, capacity, etc. of combined metropolitan and country waterworks for the years 1938-39 and 1950-51 to 1954-55:—

## WATERWORKS, SOUTH AUSTRALIA : SERVICES.

Year.	Assessments.(a)		Area of Districts Supplied. (a)	Capacity of Reservoirs, Tanks, etc.	Length of Mains.	Number of Meters.
	Number.	Annual Value.				
		£	Acres.	Mill. gals.	Miles.	
1938-39 ..	185,625	6,302,445	11,857,968	23,814	6,384	97,074
1950-51 ..	216,989	8,556,078	11,968,452	23,943	7,203	109,433
1951-52 ..	227,082	12,202,222	11,974,297	23,984	7,368	114,222
1952-53 ..	234,269	13,366,875	11,976,503	24,009	7,478	119,349
1953-54 ..	237,742	14,319,989	11,985,353	24,013	7,555	125,144
1954-55 ..	239,389	15,307,092	12,100,784	24,014	7,700	134,058

(a) Excludes Morgan-Whyalla Water Supply—water sold by measure.

(b) *Finances.* Figures for 1938-39 and 1950-51 to 1954-55 are shown in the following table.

## WATERWORKS, SOUTH AUSTRALIA : FINANCES.

(£.)

Year.	Invested Capital at 30th June.	Revenue.	Expenditure.			Deficit.
			Working Expenses.	Interest and Debt Redemption.	Total.	
1938-39 ..	14,649,052	654,688	242,528	651,972	894,500	239,812
1950-51 ..	22,591,460	1,098,360	1,068,102	720,250	1,788,352	680,992
1951-52 ..	25,718,681	1,301,075	1,279,742	747,386	2,027,128	726,053
1952-53 ..	28,573,826	1,415,713	1,377,212	789,517	2,166,729	751,016
1953-54 ..	32,156,877	1,505,690	1,424,169	883,876	2,308,045	802,355
1954-55 ..	37,353,231	1,725,017	1,855,026	1,095,914	2,950,940	1,225,923

(iii) *Adelaide Waterworks.* At 30th June, 1954 the Adelaide waterworks supplied a district of 144,711 acres. The capacity of its five reservoirs was 14,469 million gallons and there were 1,886 miles of mains.

The piping of River Murray water to Adelaide was completed in November, 1954. This water supplements the Metropolitan and Warren system areas and serves country areas en route. Another major project—the construction of a large reservoir on the South Para River—is still under construction but is nearing completion. This reservoir will provide additional storage to serve the lower northern areas of the State and will make some additional provision for the metropolitan area. The capacity of this new reservoir will be about 10,000 million gallons.

Particulars of finances for the years 1938-39 and 1950-51 to 1954-55 are shown below :—

**ADELAIDE WATERWORKS : FINANCES.**

(£.)

Year.	Invested Capital at 30th June.	Revenue.	Expenditure.			Surplus (+) or Deficit (-)
			Working Expenses.	Interest and Debt Redemption.	Total.	
1938-39 ..	4,676,110	446,459	111,347	202,279	313,626	+ 132,833
1950-51 ..	7,814,093	680,275	400,600	230,821	631,421	+ 48,854
1951-52 ..	10,101,923	860,492	507,444	260,752	768,196	+ 92,296
1952-53 ..	11,849,046	908,177	534,074	313,252	847,326	+ 60,851
1953-54 ..	14,438,595	968,575	614,308	377,909	992,217	- 23,642
1954-55 ..	17,922,472	1,078,614	939,317	511,127	1,450,444	- 371,830

(iv) *Adelaide Metropolitan Sewerage.* The Adelaide metropolitan sewerage system, comprising the Adelaide, Glenelg and Port Adelaide areas, with drainage areas of 100 square miles in all, includes a sewage farm, and treatment works at Glenelg and Port Adelaide. The total quantity of sewage pumped by the various stations was 4,665 million gallons during 1954-55. Other particulars for 1938-39 and 1950-51 to 1954-55 are shown hereunder :—

**ADELAIDE METROPOLITAN SEWERAGE : SUMMARY.**

Year.	Length of Sewers.	Number of Con- nections.	Invested Capital at 30th June.	Revenue.	Expenditure.			Surplus (+) or Deficit (-).
					Working Expenses.	Interest and Debt Redemption.	Total.	
1938-39 ..	Miles. 923	80,745	£ 3,361,034	£ 268,880	£ 77,023	£ 150,273	£ 227,296	+ £ 41,584
1950-51 ..	1,133	107,634	4,855,351	371,835	255,009	160,253	415,262	- 43,427
1951-52 ..	1,163	113,432	5,372,988	515,303	358,002	161,780	519,782	- 4,479
1952-53 ..	1,206	120,510	5,860,255	551,843	399,327	162,015	561,342	- 9,499
1953-54 ..	1,244	126,375	6,325,084	601,253	440,028	179,435	619,463	- 18,210
1954-55 ..	1,292	131,932	6,974,042	641,194	468,969	205,594	674,563	- 33,369

(v) *Country Water Supply.* Water district systems outside Adelaide at 30th June, 1955 comprised an area of 11,956,073 acres, and the capacity of the reservoirs was 9,545 million gallons. These figures exclude the Morgan-Whyalla supply system, which obtains its water from the River Murray. The storage tanks of this system had a capacity of 44 million gallons.

The Uley-Wanilla sub-artesian basin has been utilised to augment the Tod River District supplies. Pumping began in 1947. In 1954-55 nine bores were in operation and 379 million gallons were pumped from the basin to meet the needs of Port Lincoln. At 30th June, 1955, £5,014,866 had been invested in the Tod River District.

Construction work is proceeding on the scheme to reticulate water to Yorke Peninsula. The section of the new 20 inch to 26 inch steel main between Bundaleer Reservoir and Bute has been completed and is in service.

The following table gives financial information on country waterworks for 1938-39 and 1950-51 to 1954-55:—

**COUNTRY WATERWORKS, SOUTH AUSTRALIA : FINANCES.(a)**  
(£.)

Year.	Invested Capital at 30th June.	Revenue.	Expenditure.			Deficit.
			Working Expenses.	Interest.	Total.	
1938-39 ..	10,015,613	207,569	130,523	449,691	580,214	372,645
1950-51 ..	12,289,918	310,396	647,994	407,810	1,055,804	736,408
1951-52 ..	13,123,855	339,155	727,174	405,334	1,132,508	793,353
1952-53 ..	14,018,673	407,944	757,727	394,750	1,152,477	744,533
1953-54 ..	17,718,282	630,466	903,212	505,957	1,409,179	778,713
1954-55 ..	19,430,759	646,193	915,709	584,787	1,500,496	854,093

(a) Excludes Morgan-Whyalla system.

(vi) *Morgan-Whyalla Water Supply Scheme.* This scheme, which involved the laying of 223 miles of main, was officially opened on 31st March, 1944, the capital invested to 30th June, 1955 being £2,577,469. Particulars of this scheme, where applicable, are included in the tables of the combined waterworks in (ii) above. During 1954-55 the water used from the system between Hanson and Whyalla amounted to 1,264 million gallons. Revenue for the year 1954-55 was £173,880, working expenses, etc. £155,195, interest charges, £82,200 and deficit, £63,515. Corresponding figures for 1953-54 were respectively, £203,889, £160,721, £81,674 and £38,506.

5. Western Australia.—(i) *General.* The water supply and sewerage systems of Western Australia are principally under the management of Government Departments, and are divided into the following categories:—(a) Metropolitan Water Supply, Sewerage and Drainage, covering Perth, Fremantle, Claremont, Guildford, Midland Junction and Armadale District; (b) Country Areas (previously Goldfields) Water Supply; (c) Water Supply of other towns, etc.; (d) Agricultural Water Supply, and (e) Artesian and sub-artesian waters.

(ii) *Metropolitan Water Supply, Sewerage and Drainage.* (a) *General.* The sources of the metropolitan water supply are the Canning Dam, Churchman's Brook, Wongong Brook, Victoria Reservoir, Armadale Pipe Head Dam and Well, and certain bores. The largest reservoir, the Canning Dam, has a capacity of 20,550 million gallons, about 5,000 million gallons more than that of the Mundaring Reservoir to which it is linked by a pipeline.

The sewage treatment works of Perth and suburbs consist of primary sedimentation with separate sludge digestion and discharge of all effluent direct to the ocean. Fremantle treatment works consist of septic tanks with ocean outfall for effluent. There are three treatment works, situated at West Subiaco, Swanbourne and Fremantle.

(b) *Water Supply.* The following table shows particulars of water supply services for 1938-39 and 1949-50 to 1953-54:—

**METROPOLITAN WATER SUPPLY, WESTERN AUSTRALIA : SERVICES.**

Year.	Number of Services.	Estimated Population Supplied.	Average Daily Consumption.	Total Consumption for Year.	Average Daily Consumption.		Length of Mains.	Number of Meters.
					Per Service.	Per Head of Estimated Population.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	
1938-39 ..	61,467	248,248	14.1	5,147	229	56.8	953	40,014
1949-50 ..	79,835	297,123	29.1	10,618	364	97.9	1,224	49,370
1950-51 ..	84,926	303,422	28.4	10,354	334	93.5	1,271	52,277
1951-52 ..	90,436	309,851	31.0	11,337	343	100.0	1,327	61,146
1952-53 ..	96,155	316,423	30.7	11,201	319	97.0	1,422	69,262
1953-54 ..	102,093	323,131	31.0	11,713	342	108.0	1,500	73,780

Water rating for 1953-54 was 1s. 9d. in the £1 on annual valuation.

(c) *Sewerage and Drainage.* Some particulars of the metropolitan sewerage and drainage services for 1938-39 and 1949-50 to 1953-54 are shown below :—

**METROPOLITAN SEWERAGE AND DRAINAGE, WESTERN AUSTRALIA : SERVICES.**

Year.	Houses Connected.	Estimated Population Served.	Sewage Pumped for the Year.(a)	Length of Sewers.	Length of Stormwater Drains.
			Mill. gals.	Miles.	Miles.
1938-39.. ..	36,652	162,457	1,030	444	31
1949-50.. ..	48,909	205,418	2,326	588	34
1950-51.. ..	50,480	212,016	3,809	605	34
1951-52.. ..	52,171	224,000	3,080	626	34
1952-53.. ..	54,467	229,700	3,333	648	34
1953-54.. ..	56,526	238,400	3,372	654	34

(a) Aggregate of quantities pumped by the various stations.

Sewerage rating for 1953-54 was 1s. 11d in the £1 on annual valuation, while stormwater drainage rating was 5d.

(d) *Finances.* The following table shows particulars of the finances of the Western Australian Metropolitan Water Supply, Sewerage and Drainage Department for the years 1938-39 and 1949-50 to 1953-54 :—

**METROPOLITAN WATER SUPPLY AND SEWERAGE AND DRAINAGE, WESTERN AUSTRALIA : FINANCES.**

(£.)

Service and Year.	Capital Cost at 30th June.	Revenue.	Expenditure.			Surplus (+) or Deficit (-).
			Working Expenses.	Interest and Debt Redemption.	Total.	
Water Supply—						
1938-39 .. ..	4,898,167	285,313	50,975	228,527	279,502	+ 5,811
1949-50 .. ..	6,200,989	452,956	186,219	224,958	411,177	+ 41,779
1950-51 .. ..	6,771,509	488,396	228,442	243,807	472,249	+ 16,147
1951-52 .. ..	7,665,863	543,872	288,525	284,820	573,345	- 29,473
1952-53 .. ..	8,817,351	618,603	364,638	324,107	688,745	- 70,142
1953-54 .. ..	9,874,822	811,500	408,714	380,729	789,443	+ 22,057
Sewerage and Drainage—						
1938-39 .. ..	3,497,938	174,950	30,630	149,714	180,344	- 5,394
1949-50 .. ..	4,567,278	274,113	84,988	196,234	281,222	- 7,109
1950-51 .. ..	4,884,224	288,598	119,125	206,701	325,826	- 37,228
1951-52 .. ..	5,169,227	339,917	156,507	238,599	395,106	- 55,189
1952-53 .. ..	5,449,248	402,808	182,184	252,256	434,440	- 31,632
1953-54 .. ..	5,749,506	542,476	235,826	263,713	499,539	+ 42,937

(iii) *Country Areas Water Supply (Previously Goldfields Water Supply).* The source of supply for Kalgoorlie, Coolgardie and adjacent goldfields, as well as for the towns and districts on or near the pipeline, is the Mundaring Reservoir, whose capacity is 15,100 million gallons. This scheme is linked by pipeline with the Canning Dam.

Work is proceeding for a comprehensively reticulated water scheme at an estimated cost of approximately £4,300,000 to serve an area of about 4,500,000 acres of farm lands and some 23 agricultural towns, including the principal towns on the Great Southern Railway. The supply to the Eastern Goldfields will be increased to permit expansion of the gold-mining industry, the already increased capacity of the Mundaring Reservoir being part of this scheme. It is also planned to increase the storage capacity of the Willington Dam to 38,000 million gallons. Financing of the scheme is being shared by the Commonwealth and the State Governments on a £1 for £1 basis. Expenditure on this work to 30th June, 1954 totalled £2,283,122.

The following table shows details of the Country Areas Water Supply for 1938-39 and 1949-50 to 1953-54 :—

**COUNTRY AREAS WATER SUPPLY(a), WESTERN AUSTRALIA : SUMMARY.**

Year.	Number of Services.	Total Consumption.	Length of Water Mains.	Number of Meters.	Capital Cost.	Revenue.	Expenditure. (b)	Surplus (+) or Deficit (-)
		Mill. gals.	Miles.		£	£	£	£
1938-39 ..	13,670	1,735	1,720	10,872	5,527,890	331,457	298,531	+ 32,926
1949-50 ..	16,063	2,208	1,777	13,991	6,803,271	346,660	566,614	- 219,954
1950-51 ..	16,229	2,762	1,793	14,180	7,461,331	359,468	673,318	- 313,850
1951-52 ..	16,598	2,314	1,802	14,640	7,916,564	366,755	806,398	- 439,643
1952-53 ..	17,124	2,374	1,810	15,289	8,314,816	398,057	1,010,036	- 611,979
1953-54 ..	17,375	2,565	1,818	15,500	8,770,042	432,502	1,071,597	- 639,095

(a) Previously Goldfields Water Supply.

(b) Includes interest and debt redemption.

(iv) *Water Supply of Other Towns, etc.* (a) *Controlled by Public Works Department.* During 1953-54, water supplied to other towns and districts, excluding minor water supplies, amounted to 910 million gallons, including service to adjacent mines, 14 million gallons, and railways 73 million gallons. There were in all, 16,097 services connected.

(b) *Controlled by Commonwealth and State Government Railways.* Consumption for the year ended 30th June, 1954 was 299 million gallons. In addition, 371 million gallons were obtained from other sources, mainly the Country Areas Water Supply and the Metropolitan Water Supply.

(c) *Water Boards not Controlled by Government.* During 1953-54, approximately 424 million gallons of water were supplied to an estimated population of 18,399.

(v) *Agricultural Water Supply.* During the fifty years from 1st July, 1904 to 30th June, 1954, 584 tanks were built, 1,159 wells sunk, and 5,611 bores (including artesian) put down. Of the bores put down, 1,588 yield fresh or stock water.

(vi) *Artesian and Sub-artesian Waters.* Up to 30th June, 1954 the total number of bores put down in search of artesian or sub-artesian water (inclusive of operations by Defence Services) was 341 ranging in depth from 21 to 4,006 feet. Water (fresh or stock) was struck in 290 bores, 174 of which were artesian and 116 sub-artesian.

6. *Tasmania.*—(i) *Waterworks.* At the end of 1952-53 (1951-52 in parentheses) there were 38 (37) municipal waterworks in Tasmania. The capacity of the reservoirs was 887 (881) million gallons, the estimated population served was 210,291 (201,281), the number of properties assessed was 66,857 (64,088) and the length of aqueducts, mains and reticulation was 1,199 (1,122) miles. Costs of construction amounted to £3,038,190 (£2,538,256). The largest of these undertakings is Hobart, with a reservoir capacity at the end of 1952-53 of 578 million gallons, and 161 miles of reticulation and 92 miles of aqueduct and main.

(ii) *Sewerage.* In Tasmania sewerage also is the concern of local authorities.

## § 6. Harbour Boards and Trusts.

NOTE.—The number and net tonnage of all vessels which entered the major ports in each State during the years 1953-54 and 1954-55 are shown in Chapter VII.—Transport and Communication, A. §3. Shipping at Principal Ports. Particulars of overseas and interstate cargo discharged and shipped during 1954-55 are shown in A. § 6 of the same chapter.

1. *New South Wales.*—(i) *Maritime Services Board of New South Wales.* (a) *General.* The Maritime Services Board of New South Wales is a corporate body of five Commissioners, three of whom are full-time members and two, representing shipping and

other interests, part-time members. The Board was brought into existence on 1st February, 1936 by the Maritime Services Act 1935 in order to co-ordinate the port and navigation services of the State, which had previously been administered by the Sydney Harbour Trust and by the State Department of Navigation.

The Board exercises general control over intra-state shipping, including the survey and certification of vessels, the licensing of harbour craft and the examination and issue of certificates to officers; is responsible for the provision of pilotage services, lights, beacons, buoys and other port facilities; imposes and collects rates and charges on goods and vessels; and is vested with the general control and management of the navigable waters and ports within the State.

At the Port of Sydney the Board is also responsible for the provision of adequate wharfrage and channels, and carries out all construction, maintenance and dredging work. At other ports of New South Wales such work is undertaken by the Department of Public Works.

(b) *Port of Sydney.* The entrance to Sydney Harbour, the principal port of New South Wales, is nearly a mile wide, and the depth of its navigable channel is not less than 80 feet. Between the entrance, known as "The Heads", and the Harbour proper, a distance of 4 miles, there are two separate channels, each 700 feet wide, the Western Channel not less than 42 feet deep (low water ordinary spring tides) and the Eastern Channel 40 feet deep. The foreshores, which have been reduced by reclamations, are 152 miles in length and the total area of the port is 13,600 acres, or 21 square miles, of which about one-half has a depth of 30 feet or more at low water ordinary spring tide. The mean range of tides is 3 feet 6 inches.

The wharves are situated in close proximity to the business centre of the city, about four or five miles from the Heads. At present there are 6 dolphin berths each 550 feet long, and 122 effective commercial cargo berths with a total length of 50,432 feet controlled by the Board. Accommodation for harbour craft amounts to 4,835 feet while the length of other berths including oil and private wharves totals 19,532 feet. Depth of water at wharves is up to 40 feet. Special facilities for the storage and handling of staple products such as wheat, wool, etc., are provided and modern plant has been installed for replenishing ships' bunkers with oil or coal.

Docking facilities are available for the largest vessel afloat. The Captain Cook Graving Dock, opened in March, 1945, ranks amongst the largest graving docks in the world being 1,133 feet by 147 feet 7½ inches with a depth of 45 feet 2 inches over the sill at high water. There are also several smaller dry docks and floating docks in the port.

The following table shows particulars of the finances of the Board in respect of the Port of Sydney for 1938-39 and 1949-50 to 1953-54 :—

#### MARITIME SERVICES BOARD : FINANCES OF THE PORT OF SYDNEY.

(£.)

Year.	Total Capital Debt at 30th June.	Revenue.			Expenditure.			Surplus (+) or Deficit (—).
		Wharfrage and Transhipment Rates.	Tonnage Rates and Berthing Charges.	Total.	Administration and Maintenance.	Interest, Debt Redemption, Exchange, etc.	Total. (a)	
1938-39..	11,276,399	773,501	38,180	1,155,627	380,120	536,781	916,901	+238,726
1949-50..	11,571,669	925,144	229,092	1,658,203	957,510	526,171	1,483,681	+174,522
1950-51..	11,779,317	1,032,685	333,902	1,955,073	1,155,004	528,928	1,683,932	+271,141
1951-52..	12,194,585	1,107,933	334,530	2,354,154	1,455,711	533,401	1,989,112	+365,042
1952-53..	12,562,700	971,553	254,637	2,021,121	1,529,050	546,590	2,075,640	- 54,519
1953-54..	12,799,104	1,482,492	333,320	2,471,540	1,517,811	550,654	2,068,465	+403,075

(a) Excludes capital expenditure (1938-39, £28,576; 1949-50, £287,211; 1950-51, £384,911; 1951-52, £495,443; 1952-53, £465,764; 1953-54, £468,010) and expenditure on renewals and replacements (1949-50, £159,935; 1950-51, £196,102; 1951-52, £291,454; 1952-53, £299,286; 1953-54, £317,493.)



(c) *Port of Newcastle.* The Maritime Services Board of New South Wales is the port authority but other government bodies are responsible for certain functions and activities of a maritime character at Newcastle. These include—

- (i) The Department of Public Works, which is the constructing, dredging and maintenance authority at Newcastle as well as at other New South Wales ports except Sydney ;
- (ii) The Department of Railways, which is responsible for the control of wharfage and shipping arrangements in connexion with the coal industry and the provision and maintenance of appliances necessary for the transport and shipment of coal.

An Advisory Committee consisting of eight members, appointed by the Governor, assists the Board in matters associated with the operation of the port. In regard to volume of trade, Newcastle ranks second in importance in New South Wales and third in Australia. It is primarily a coal-loading port, and the proximity to the coal fields has led to the establishment of important industries, including iron and steel works, in the district. Facilities are available for the shipment of wool, wheat and frozen meat, and a wharf is available for timber.

The area used by shipping is about 570 acres, excluding the entrance to the harbour and the inner basin, which together cover an area of 162 acres. The width of the harbour at the entrance is 1,200 feet, and the navigable channel, with a depth of 25 feet 6 inches at low water, is 350 feet wide. Wharfage accommodation amounts to 16,100 feet, the Maritime Services Board controlling 6,500 feet and the Railways Department 7,000 feet while 2,600 feet is privately owned. There are also a number of dolphin berths available for tie-up purposes. A floating dock of 15,000 tons capacity is available at the port.

(d) *Port Kembla.* As from 3rd May, 1948, the Maritime Services Board assumed the administration and navigational control of Port Kembla, which had previously been administered by the New South Wales Department of Public Works. The Department continues however to be the constructing authority in respect of works, dredging and maintenance. In respect of volume of trade, Port Kembla ranks third in the ports of New South Wales, and about fifth in those of Australia. It has an area of approximately 330 acres, with depths ranging from 20 to 50 feet (low water ordinary spring tide), and wharfage accommodation totalling 4,800 feet has been provided for large ocean-going vessels. No cargo sheds are available as the nature of trade at the port does not call for the provision of sheltered storage accommodation at the berths. It is the port of the southern coalfields and for the expanding industrial area in and about Wollongong.

(e) *Other Ports.* In addition to the ports of Sydney, Newcastle and Port Kembla, the Board controls 29 outports along the coastline of 609 miles. The shipping trade of these outports is relatively small.

(ii) *Port Charges.* The port charges payable in respect of shipping and ships' cargoes in New South Wales are imposed by the Commonwealth Government in terms of the Lighthouses Act and the Federal Navigation Act, and by the State authorities under the Navigation Act of New South Wales, the Harbour and Tonnage Rates Act, and the Sydney Harbour Trust Act. Since 1st February, 1936, the State enactments have been administered by the Maritime Services Board. The gross collections by the State authorities amounted to £3,614,233 in 1953-54. These figures include the Port of Sydney revenue (see table above) and State navigation service collections (£1,142,693 in 1953-54). Commonwealth Government revenue from light dues and navigation receipts, for the whole of Australia, amounted to £224,654 in 1953-54.

2. *Victoria.*—(i) *Melbourne Harbor Trust.* (a) *General.* Information regarding the origin and constitution of this Trust, which controls the Port of Melbourne, appears in Official Year Book No. 12, p. 970 *et seq.* The composition of the Board of the Melbourne Harbor Trust Commissioners was increased to five during 1954 by the appointment of a further part-time Commissioner to represent waterside workers' interests. At 31st

December, 1954, the sheds available for wharfage accommodation had a length of 21,244 feet, covering an area of 1,506,083 square feet. The area of water in the bay and River Yarra under the control of the Trust is approximately 5,327 acres and the total length of wharves, piers and jetties in the port is 62,703 feet, giving an area of over 58 acres of wharfage, and 54,795 feet of effective berthing space. During 1954, work was continued on the new berths at Appleton Dock (ultimately to have eighteen berths), Victoria Docks, South Wharf and Williamstown. The depth of water (low water ordinary spring tide) from the main channels to the principal wharves is about 31 to 34 feet, the maximum being about 40 feet.

(b) *Finances.* The following table shows particulars of the financial operations of the Trust during the years 1939 and 1950 to 1954:—

### MELBOURNE HARBOR TRUST : FINANCES.

(£.)

Year.	Gross Loan Indebtedness at 31st December.	Revenue.		Expenditure.				Surplus(+) or Deficit(—)
		Wharfage and Tonnage Rates.	Total.	Administration and Maintenance.	Interest, Debt Redemption, Exchange, etc.	Depreciation, Renewals and Insurance Account.	Total. (a)	
1939 ..	4,018,527	689,100	843,899	282,533	270,650	129,160	837,577	+ 6,322
1950 ..	3,972,029	1,293,923	1,771,074	675,830	187,582	162,883	1,301,687	+ 469,387
1951 ..	5,883,857	1,493,423	2,129,432	1,036,842	235,881	175,263	1,768,105	+ 361,327
1952 ..	7,914,146	1,256,581	1,941,252	1,204,863	292,485	179,047	1,947,085	— 5,833
1953 ..	9,581,933	1,423,345	2,052,272	1,230,195	381,914	98,182	2,013,554	+ 38,718
1954 ..	9,641,361	1,800,811	2,593,347	1,232,574	418,818	479,393	2,509,947	+ 83,400

(a) Includes statutory payments to Consolidated Revenue and Geelong Harbor Trust:—1939 £155,234; 1950, £275,383; 1951, £320,119; 1952, £270,690; 1953, £303,263; 1954, £379,162. Excludes capital expenditure:—1939 £128,567; 1950, £1,589,392; 1951, £2,058,921; 1952, £2,246,097; 1953 £1 255,613; 1954, £1,255,625.

(ii) *Geelong Harbor Trust.* The Geelong Harbor Trust was constituted in 1905, and reconstituted in 1934 under the provisions of the Melbourne and Geelong Harbor Trusts Act 1934. The Trust is under the control of three Commissioners appointed by the Governor-in-Council. The port dredging programme was nearing completion at the end of 1954 and will provide a minimum depth of water throughout approaches and at all berths of 32 feet (mean low water spring tides).

Revenue for the year 1954 was £544,401, and revenue expenditure was £370,440. The gross value of the Trust's fixed assets increased by £727,863 in 1954 and loans outstanding at the end of the year amounted to £2,695,862.

(iii) *Other Ports.* Apart from Melbourne and Geelong, Portland is the only Victorian port of more than minor importance.

3. *Queensland.*—(i) *General.* The ports of Queensland, except Brisbane and certain minor ports, are administered by Harbour Boards with members representing the towns and districts served by the ports. Brisbane and the minor ports are controlled by the State Treasury through the Department of Harbours and Marine, which supervises the engineering activities of the other ports.

(ii) *Brisbane.* Brisbane accommodates comfortably, in its dredged and improved river, the largest vessels in the Australian trade. The main centres for shipping, although further downstream than formerly, because of the increasing size of vessels, are still within easy access of the city. The maximum depths (low water ordinary spring tide) of the shipping channel decrease from 32 feet in the North-West channel to 20 feet in

the Bulimba Reach to Victoria Bridge section. Depths at wharves vary between 23 and 29 feet. Adequate dry-docking facilities are available. The finances of Brisbane Harbour for the years 1938-39 and 1948-49 to 1952-53 are shown below :—

## BRISBANE HARBOUR : FINANCES.

(£'000.)

Year.	Loan Indebtedness at 30th June.	Receipts.		Payments.	
		Harbour Dues.	Total.	Working Expenses.	Total (including Interest and Redemption)
1938-39 .. ..	1,179	165	173	36	112
1948-49 .. ..	1,256	190	209	162	250
1949-50 .. ..	1,325	219	299	168	260
1950-51 .. ..	1,572	221	253	237	329
1951-52 .. ..	1,862	276	326	348	463
1952-53 .. ..	2,168	318	393	426	556

In addition to Brisbane Harbour, the Department of Harbours and Marine also controls the Brisbane Dry Dock, the Cairncross Dock, the Brisbane River, and ten smaller harbours not administered by harbour boards.

(iii) *Harbour Boards.* Harbour boards control the ports of Bowen, Bundaberg, Cairns, Gladstone, Mackay, Rockhampton and Townsville. After 1st January 1953, the harbour boards adopted the financial year ended 30th June for accounting purposes instead of the calendar year as previously. Finances for each port for the eighteen months ended 30th June, 1954 are shown below, together with a summary for the years 1939 and 1949 to 1952.

## HARBOUR BOARDS, QUEENSLAND : FINANCES.

(£.)

Harbour Board.	Loan Indebted- ness at 30th June (a)	Revenue.		Expenditure (excluding Loan).		Surplus (+) or Deficit (-)
		Wharf- age and Harbour Dues.	Total.	Working Expenses.	Total (including Int' rest and Redem- ption).	
Bowen .. ..	352,933	59,178	69,955	40,308	70,508	— 553
Bundaberg .. ..	42,143	7,778	14,051	9,921	14,482	— 431
Cairns .. ..	201,368	256,899	416,520	303,946	372,454	+ 44,066
Gladstone .. ..	353,355	39,984	195,398	69,021	191,875	+ 3,523
Mackay .. ..	783,017	225,092	247,103	42,555	96,557	+ 150,546
Rockhampton .. ..	563,393	78,252	99,729	73,186	102,226	— 2,497
Townsville .. ..	417,470	288,281	371,138	250,409	310,834	+ 51,304
Total, 1954(b) .. ..	2,713,679	955,464	1,413,894	789,346	1,167,936	+ 245,958
„ 1952 .. ..	2,059,080	455,677	713,312	440,784	696,843	+ 16,469
„ 1951 .. ..	1,786,774	402,903	599,505	370,040	534,095	+ 65,410
„ 1950 .. ..	1,611,241	378,949	510,719	284,896	408,561	+ 102,158
„ 1949 .. ..	1,523,644	347,843	464,450	307,716	431,359	+ 33,091
„ 1939 .. ..	1,548,144	249,510	410,439	139,752	343,083	+ 58,356

(a) Years 1939 and 1949 to 1952, 31st December.

(b) Eighteen months ended 30th June, 1954.

4. South Australia.—*The South Australian Harbors Board.* All South Australian harbours are controlled by the South Australian Harbors Board, which consists of three Commissioners appointed by the Governor for a period of five years and eligible

for re-appointment. The Board is responsible to the Minister of Marine for the discharge of its duties and functions. The most important ports are the 5 deep sea ports of Adelaide, Pirie, Wallaroo, Lincoln and Thevenard. At several ports, the wharves or jetties are privately controlled, the principal of these being Whyalla (controlled by the Broken Hill Pty. Co. Ltd. under a Private Act of Parliament) and Augusta (controlled by the Commonwealth Railways) whilst at Ardrossan the Broken Hill Pty. Co. Ltd. has installed a bulk loading plant for handling dolomite and grain. Maximum depths of water (low water ordinary spring tide) at the wharves of the main ports range from 20 to 24 feet at Pirie to 35 feet at Adelaide (Outer Harbour). The following table shows the finances of the Board for 1938-39 and 1949-50 to 1953-54 :—

### SOUTH AUSTRALIAN HARBORS BOARD : FINANCES.

(£.)

Year.	Capital at 30th June. (a)	Revenue.	Expenditure from Revenue.				Surplus(+) or Deficit (—).
			Working Expenses.	Interest.	Debt Redemption.	Total.	
1938-39 ..	8,026,441	664,915	205,848	326,719	50,000	582,567	+ 82,348
1949-50 ..	8,545,084	1,050,742	583,965	281,691	33,327	898,983	+ 151,759
1950-51 ..	8,896,281	1,141,174	784,191	281,657	..	1,065,848	+ 75,326
1951-52 ..	9,581,786	1,336,504	1,039,801	280,872	..	1,320,673	+ 15,831
1952-53 ..	10,017,582	1,240,679	1,083,322	286,456	..	1,369,778	— 120,099
1953-54 ..	10,782,702	1,382,276	1,280,709	312,333	..	1,593,042	— 210,766

(a) State Treasurer's Funds and Reserve employed.

5. *Western Australia.*—(i) *Fremantle Harbour Trust.* Fremantle Harbour is controlled by a board of five Commissioners appointed by the Governor-in-Council. Maximum depth of water (low water ordinary spring tide) at the entrance to the harbour is 30 feet, and at the wharves 33 feet. The length of wharf berth accommodation is 10,495 feet.

Gross earnings for the year 1953-54 amounted to £2,029,053, working expenses to £1,579,741, interest £159,642, debt redemption £45,174, renewals fund £2,000, and payment of surplus cash to Consolidated Revenue £51,785. There was also a special loan repayment from revenue amounting to £236,460. The total amount debited to loan capital account at 30th June, 1954 was £4,128,140.

(ii) *Bunbury Harbour Board.* The Bunbury Harbour Board consists of five members appointed by the Government. The depth of water at the entrance to the harbour and at the wharf is 27 feet (low water ordinary spring tide). Berthage accommodation is 3,700 feet. Gross earnings in 1953-54 were £34,147, working expenses £73,804, and interest £53,314. The total amount debited to loan capital account at 30th June, 1954 was £1,371,970.

(iii) *Other Ports.* Only the ports of Fremantle, Bunbury and Albany in Western Australia are under the control of trusts, the remainder are Government operated. Of these, Carnarvon, Geraldton and Onslow have the largest amount of shipping movement.

6. *Tasmania.*—There are eight marine boards and two harbour trusts in Tasmania. The marine boards control the ports of Hobart, Launceston, Stanley (Circular Head), Burnie, Wynyard (Table Cape), Devonport, Strahan, Currie (King Island) and Whitemark (Flinders Island) and the harbour trusts those of Smithton and Leven. Aggregate receipts of revenue accounts of all these authorities during the year 1953-54 were £833,589, and expenditures £743,270 including loan charges £115,602. The total receipts of the Hobart Marine Board during 1953-54 were £360,741, loan charges amounted to £32,913 and total expenditure to £353,600. Launceston Marine Board receipts during 1953-54 amounted to £225,225, loan charges to £15,386 and total expenditure to £177,969. Loan indebtedness of all marine boards and trusts at 30th June, 1954 was £2,213,951, of which £782,782 was in respect of Hobart and £184,722 in respect of Launceston.

Hobart, Launceston, Burnie and Devonport are the principal ports of Tasmania. In addition to their interstate and intra-state traffic, there is also considerable overseas shipping. Depths of water at wharves vary, in general, between 16 and 34 feet (low water ordinary spring tide), but at Hobart there is a depth of water of from 30 to 52 feet.

## § 7. Fire Brigades.

1. *New South Wales.*—(i) *General.* A Board of Fire Commissioners, consisting of eight members, operates under the Fire Brigades Act 1909–1949, and 153 fire districts had been constituted at the end of 1954. Up to the end of 1949, the cost of maintenance of fire brigades was borne in proportions of one quarter, one quarter, and one half respectively by the Government, the municipalities, and the insurance companies concerned, the expenditure so regulated that the proportion payable by the councils in a fire district should not, except in special circumstances, exceed the amount obtainable from ½d. in the £1 rate on the unimproved capital value of ratable land in the fire district. In June, 1949 legislation was introduced (i) increasing the limit of the Board's borrowing power from £250,000 to £500,000, (ii) providing for the varying of the maximum rate that may be levied by councils, and (iii) altering the basis of contributions so that from 1st January, 1950, local councils and the Government will each pay one-eighth and the insurance companies three-quarters.

Other legislation, introduced in September, 1949 to improve and modernize the law dealing with the prevention of bush fires and to build up the organization of the bush fire-fighting services, provided for the establishment of Fire Regions and a Bush Fire Fighting Fund to be financed from contributions by the Government, councils and insurance companies in the proportion of one-quarter, one-quarter and one-half, respectively. The contribution of any council shall not exceed one-twentieth of a penny in the £1 on the unimproved capital value of ratable land in the area of the council not being land within a fire district constituted under the Fire Brigades Act 1909–1949.

(ii) *Board of Fire Commissioners of New South Wales.* At 31st December, 1954 the authorised strength of the Fire Brigade throughout the fire districts of New South Wales was 294 officers and 823 permanent and 2,239 volunteer firemen. Corresponding figures for the Sydney Fire District were 242, 774 and 349. The revenue for the year 1954 was £1,873,407, made up as follows:—From the Government, £231,254; municipalities and shires, £231,254; fire insurance companies and firms, £1,387,521; and from other sources, £23,378. The disbursements for the year were £1,788,749.

2. *Victoria.*—(i) *General.* The Fire Brigades Act of 1928 provided for a Metropolitan Fire Brigades Board and a Country Fire Brigades Board each consisting of nine members. In December, 1944 the latter Board was superseded by the Country Fire Authority under an Act of that title, and the number of members was increased to ten.

(ii) *Metropolitan Fire Brigades Board.* Since 1st October, 1952, the Metropolitan Fire Brigades Board has received contributions from the municipalities and the insurance companies in the proportion of one-third and two-thirds respectively. Prior to 1st October, 1952, the Board received contributions in equal proportions from the Treasury, the municipalities and the insurance companies. On 30th June, 1954 the Board had under its control 43 stations, 670 permanent staff, 61 special service and clerical, etc. staff, and 15 part-time firemen. The total receipts for 1953–54 were £1,076,175 comprising contributions, £877,311, receipts for services, £102,534, and interest and sundries, £96,330. The expenditure was £1,015,775.

(iii) *Country Fire Authority.* This authority, constituted in 1944, is responsible for the prevention and suppression of fires in the "country area of Victoria", which embraces the whole of the State outside the metropolitan fire district, excluding State forests and certain crown lands. The country area has been divided into 24 fire control regions, three of which (Ballarat, Bendigo and Geelong) are wholly urban and the remainder mixed urban and rural. The Country Fire Authority has received contributions in the proportion of two-thirds from insurance companies and one-third from the Treasury as from 1st January, 1954. Prior to that date the Treasury contributed two-thirds while the insurance companies contributed one-third. At 30th June, 1954 there were 150 insurance companies included in the operation of the Act, and 198 urban and 1,007 rural fire brigades. The effective registered strength of the brigades was 91,875 members.

The receipts for the year 1953–54 amounted to £328,173. Total expenditure other than loan amounted to £323,506.

3. *Queensland.*—(i) *General.* The Acts of 1920–1931 made provision for the retention of existing fire districts, and for the constitution of new districts. For each district there must be a Fire Brigades Board consisting of seven members, and the cost of

maintenance of each brigade is proportioned as follows :—The Treasury two-sevenths, insurance companies three-sevenths, and local authorities two-sevenths. All volunteer fire brigades in a district must be registered.

(ii) *Fire Brigades Boards.* At 30th June, 1953, the latest year for which figures are available, there were 68 Fire Brigades Boards. The total number of stations was 116, and full-time staff numbered 467, including 15 administrative, 85 officers and 367 firemen. Workshop staff numbered 17. Part-time staff numbered 596, including 69 administrative, 96 officers and 431 firemen. Volunteers numbered 336. The total revenue for the year 1952–53 was £563,740 received mainly from the following sources—Government £151,478, local authorities £151,081, insurance companies £227,220 and loans (Government and other) £30,011. The total expenditure for the year was £556,941 the chief items being salaries and wages £387,729 and interest and redemption of loans £28,739.

4. *South Australia.*—The Fire Brigades Act 1936–1944 provides for a board of five members, and the expenses and maintenance of brigades are defrayed in the proportion of two-ninths by the Treasury (subject to certain limits when the contribution exceeds £10,000), five-ninths by insurance companies, and two-ninths by the municipalities concerned. At 30th June, 1954 there were altogether 35 fire brigade stations, of which 12 were metropolitan and 23 country.

The authorized strength of the permanent staff was 376, including 271 officers and men and 85 country auxiliary firemen. The total revenue for the year 1953–54 was £305,307, made up as follows :—insurance companies £183,899, Treasury £47,849, and municipalities £73,559. The Treasury contribution includes an additional grant of £35,853.

5. *Western Australia.*—In 1942 certain municipal and road board districts were constituted fire districts under the control of the Western Australian Fire Brigades Board. There were 31 at 30th September, 1954. The contribution to the Board is made in the proportion of two-ninths from the Government, two-ninths from local government authorities, and five-ninths from insurance companies. The number of local government authorities and insurance companies who contributed numbered 55 and 127 respectively. The brigades throughout the State controlled by the Western Australian Fire Brigades Board at 30th September, 1954 numbered 48, with a staff of 1,443, including 218 permanent officers and firemen and 1,197 volunteer brigade officers and firemen. The revenue for the year ended 30th September, 1954, was £275,419 and the expenditure £273,861.

Under the Bush Fires Act a Rural Fires Prevention Advisory Committee, consisting of ten members, four of whom are nominated by the Road Board Association, was set up to advise the Minister for Lands on bush fire control. The Act also provides for the registration of bush fire control officers, who numbered 1,147 at 30th June, 1954 and the establishment of bush fire brigades, the number of which was 549 at 30th June, 1954.

6. *Tasmania.*—The Fire Brigades Act 1945 provided for the creation of the Fire Brigades Commission of Tasmania to co-ordinate the activities of existing fire brigades boards, while leaving the responsibility for individual control and management with the boards. The Commission consists of five members nominated or elected by the fire brigades boards and one member nominated by the Minister. Contributions towards the cost of operations are on the basis of one-third each from the Treasury the municipalities and the insurance companies concerned. The cost for the year 1953–54 amounted to £98,829. There were at 30th June, 1954, 31 stations amongst the 23 brigades, and their aggregate staffs numbered 432, including 79 permanent officers and 337 part-time firemen, including officers.