

CHAPTER XIX.

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 construction and maintenance 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 many 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 903, 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 cities, corporate towns and district council areas; in Western Australia as cities, towns and shires;* and in Tasmania as cities and 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. 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, water and sewerage, electricity and irrigation, harbours, or tramways, etc.—i.e. each dispenses a specific service throughout an area as distinct from the general services of the local authority.

In §§ 3 to 7, which deal with debt, roads and bridges, water supply and sewerage, harbours, and fire brigades, particulars are included 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, reconstruction 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

* Commencing 1st July, 1961—formerly known as cities, municipalities and road districts.

sake of convenience. Owing to difficulty in obtaining complete particulars of receipts and expenditure of the various local governing bodies in respect of roads under their control, the details of receipts and expenditure given in § 4 are those of central governments only, relating either to the supervisory board or commission in the State or to direct activities of a department. However, estimates of the aggregate net expenditure of all public authorities concerned with roads and bridges in Australia are given in paragraph 10 of that section. 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 appointed by the government. In some 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 XIV., Transport and Communication, contains information on municipal transport services, and Chapter VII., 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 VI., 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 1959, the area incorporated was 272,000 square miles, or nearly nine-tenths 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. At 31st December, 1959, there were 54 county councils, including the Sydney County Council.

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 (1,460 acres) adjacent to the Borough of Kororoit. 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.

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.

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.—Local government is established throughout the State, the divisions since 1st July, 1961, being cities, towns and shires (formerly cities, municipalities and road districts).

6. Tasmania.—The whole State is divided into municipal districts, Hobart and Launceston being incorporated as cities 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 for the year 1959-60 in the following table. 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 compiled from 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, 1959-60.

Local Bodies.	Number.	Area. '000 Acres.	Population. '000	Dwellings.		Value of Ratable Property.		
				Occupied.	Unoccupied.	Unimproved Capital Value. £'000.	Im- proved Capital Value. £'000.	Annual Value. £'000.
				No. (a)	No. (a)			
NEW SOUTH WALES.(b)								
Metropolitan—								
Capital City	1	7	183	52,763	1,099	161,644	469,705	25,170
Other	34	702	1,904	470,664	13,464	647,002	2,211,198	128,322
Outside Metropolitan Area	192	173,648	1,660	385,517	28,128	549,451	(c)	(c)
<i>Total</i>	<i>227</i>	<i>174,357</i>	<i>3,747</i>	<i>908,944</i>	<i>42,691</i>	<i>1,358,097</i>	(c)	(c)
VICTORIA.(d)								
Metropolitan—								
Capital City	1	8	88	22,348	455	(c)	245,939	12,297
Other	41	603	1,758	371,340	6,316	(c)	1,446,239	73,060
Outside Metropolitan Area(e)	164	55,500	1,032	267,089	20,713	(c)	1,062,263	53,756
<i>Total</i>	<i>206</i>	<i>56,111</i>	<i>2,878</i>	<i>660,777</i>	<i>27,484</i>	(c)	<i>2,754,441</i>	<i>139,113</i>
QUEENSLAND.(f)								
Capital City	1	246	578	133,064	3,948	69,910	(c)	(c)
Outside Metropolitan Area	131	425,980	909	205,598	17,436	204,096	(c)	(c)
<i>Total</i>	<i>132</i>	<i>426,226</i>	<i>1,487</i>	<i>338,662</i>	<i>21,384</i>	<i>274,006</i>	(c)	(c)
SOUTH AUSTRALIA.(f)								
Metropolitan—								
Capital City	1	4	28	7,454	211	40,761	110,000	5,500
Other	20	100	550	126,649	2,737	(c)	368,000	18,394
Outside Metropolitan Area	121	36,644	356	78,505	5,399	(c)	354,000	17,675
<i>Total</i>	<i>142</i>	<i>36,748</i>	<i>934</i>	<i>212,608</i>	<i>8,347</i>	(c)	<i>832,000</i>	<i>41,569</i>
WESTERN AUSTRALIA.(g)								
Metropolitan—								
Capital City	1	15	99	25,460	577	1,913	(c)	5,805
Other	19	107	296	65,281	1,262	43,310	(c)	2,784
Outside Metropolitan Area	127	624,466	336	72,082	4,775	59,741	(c)	1,705
<i>Total</i>	<i>147</i>	<i>624,588</i>	<i>731</i>	<i>162,823</i>	<i>6,614</i>	<i>104,964</i>	(c)	<i>10,294</i>

NOTE.—See next page for footnotes.

LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS
AND VALUE OF RATABLE PROPERTY, 1959-60—*continued.*

Local Bodies.	Num-ber.	Area. '000 Acres.	Popula- tion. '000	Dwellings.		Value of Ratable Property.		
				Occu- pied.	Unoccu- pied.	Unim- proved Capital Value.	Im- proved Capital Value.	Annual Value.
				No. (a)	No. (a)	£'000.	£'000.	£'000.
TASMANIA.(f)								
Metropolitan—								
Capital City	1	18	55	14,624	375	22,050	62,342	4,254
Other	2	99	53	9,333	531	10,111	39,248	2,254
Outside Metropolitan Area	46	16,661	239	54,905	4,382	57,353	178,571	12,149
Total	49	16,778	347	78,862	5,288	89,514	280,161	18,657

(a) Particulars of dwellings are as at Census 30th June, 1954. (b) Year ended 31st December, 1959. (c) Not available. (d) Year ended 30th September, 1960. (e) Excludes Yallourn Works Area under the jurisdiction of the State Electricity Commission. (f) Year ended 30th June, 1960. (g) Municipalities—Year ended 31st October, 1960; Road Districts—Year ended 30th June, 1960.

8. Finances.—(i) *General.* The following tables show the latest available financial statistics for local government authorities. The figures relate to the year 1959-60, except for New South Wales, where they relate to the year 1959.

For further detail on local government finances see *Finance, Part I.—Public and Private Finance*, Bulletin No. 52, 1960-61, issued by this Bureau.

(ii) *Ordinary Services.* In the returns of revenue and expenditure for 1959-60 in the following tables, 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, 1959-60.

Particulars.	N.S.W. (a)	Vic. (b)	Q'land. (c)	S. Aust. (c)	W. Aust. (d)	Tas. (c)	Total.
Number of Local Government Authorities	227	206	132	142	147	49	903

REVENUE (EXCLUDING LOAN RECEIPTS). (£'000.)

Taxation—							
Rates (net) ..	35,254	22,084	14,582	5,985	3,877	2,310	84,092
Penalties ..	297	83	..	78	73	29	380
Licences ..	667	169	145	..	..	..	1,161
Total ..	36,218	22,336	14,727	6,063	3,950	2,339	85,633
Public Works and Services—							
Sanitary and Garbage Services	3,645	1,608	2,367	52	495	98	8,265
Council Properties	3,285	(e) 4,382	736	482	1,125	272	10,282
Street Con-struction ..	1,876	1,542	..	(f) 837	359	25	4,639
Other ..	4,049	749	241	218	63	140	5,460
Total ..	12,855	8,281	3,344	1,589	2,042	535	28,646
Government Grants—							
Roads ..	10,597	270	2,088	2,672	1,348	319	17,294
Other ..	1,354	1,080	681	67	1,776	29	4,987
Total ..	11,951	1,350	2,769	2,739	3,124	348	22,281
Profits from Business Undertakings ..	..	356	..	..	52	..	408
Fees and Fines ..	..	219	..	120	56	..	395
All Other ..	..	322	(g) 4,753	156	213	182	5,626
Total Revenue ..	61,024	32,864	25,593	10,667	9,437	3,404	142,989

NOTE.—See next page for footnotes.

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE, 1959-60—continued.

Particulars.	N.S.W. (a)	Vic. (b)	Q'land. (c)	S. Aust. (c)	W. Aust. (d)	Tas. (c)	Total.
EXPENDITURE (EXCLUDING LOAN EXPENDITURE). (£'000.)							
General Administration ..	4,035	4,621	2,242	868	1,106	442	13,314
Debt Services (excluding Business Undertakings)—							
Interest ..	2,010	1,444	2,093	257	492	167	6,463
Redemption ..	3,929	1,793	2,838	544	915	261	10,280
Exchange ..	19	..	119	..	..	..	138
Other ..	..	37	12	..	..	..	49
Total ..	5,958	3,274	5,062	801	1,407	428	16,930
Public Works and Services—							
Roads, Streets and Bridges ..	27,715	10,687	8,118	6,668	2,562	1,457	57,207
Health Administration ..	1,186	397	2,734	151	266	81	13,933
Sanitary and Garbage Services ..	4,656	3,390		397	556	119	
Street Lighting ..	1,319	663	378	234	140	98	2,832
Council Properties ..	7,902	(h) 6,270	2,884	1,181	2,820	455	21,512
Other ..	2,342	568	237	276	76	83	3,582
Total ..	45,120	21,975	14,351	8,907	6,420	2,293	99,066
Grants—							
Fire Brigades ..	354	501	166	92	114	40	1,267
Hospitals and Ambulances ..	218	154	..	210	8	..	592
Other Charities ..				2			
Other ..	(i) 1,436	(j) 1,278	606	18	19	27	3,384
Total ..	2,008	1,933	772	322	141	67	5,243
All Other ..	1,390	492	(k) 3,204	..	290	180	5,556
Total Expenditure ..	58,511	32,295	25,631	10,898	9,364	3,410	140,109

(a) Figures for New South Wales relate to the year ended 31st December, 1959, 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, 1960. (c) Year ended 30th June, 1960. (d) Municipalities—Year ended 31st October, 1960, Road Districts—Year ended 30th June, 1960. (e) Includes £2,000,000 plant hire. (f) Includes £80,000 reimbursement from Highways Department. (g) Includes the following reimbursements: £1,662,000 from Main Roads Department, £409,000 from other State Government Departments and £1,045,000 from other sources. (h) Includes £1,215,000 plant and equipment. (i) To Main Roads Department. (j) Includes £755,000 to Country Roads Board. (k) Includes expenditure on work done: for Main Roads Department £1,668,000; for other State Government Departments £397,000; Other £1,012,000.

The following table shows the revenue and expenditure (excluding loan) of local government authority ordinary services for the years 1955-56 to 1959-60.

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE. (£'000.)

Year ended 30th June.	N.S.W.(a)	Victoria.(b)	Q'land.	S. Aust.	W. Aust.(c)	Tas.	Total.
REVENUE (EXCLUDING LOAN RECEIPTS).							
1956 ..	41,135	21,624	(d)	7,565	6,559	2,360	(d)
1957 ..	45,570	24,840	19,623	8,694	7,404	2,721	108,852
1958 ..	52,440	26,742	21,654	9,313	7,966	2,848	120,963
1959 ..	55,946	29,456	23,618	9,977	8,544	3,147	130,688
1960 ..	61,024	32,864	25,593	10,667	9,437	3,404	142,989
EXPENDITURE (EXCLUDING LOAN EXPENDITURE).							
1956 ..	40,938	22,215	(d)	7,828	6,804	2,452	(d)
1957 ..	46,403	25,299	19,503	8,921	7,232	2,697	110,055
1958 ..	50,510	27,210	20,870	9,115	7,751	2,828	118,284
1959 ..	54,024	29,332	23,184	10,024	8,343	3,149	128,056
1960 ..	58,511	32,295	25,631	10,898	9,364	3,410	140,109

(a) Years ended previous 31st December. (b) Years ended 30th September. (c) Municipalities—Years ended 31st October; Road Districts—Years ended 30th June. (d) Not available.

(iii) *Business Undertakings.* The tables hereunder show, for 1959-60, 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, 1959-60.
(£'000.)

Particulars.	N.S.W.	Vic.	Q'lan.l.	S. Aust.	W. Aust.	Tas.	Total.
REVENUE (EXCLUDING LOAN RECEIPTS).							
<i>Water Supply and Sewerage—</i>							
Rates	2,880	308	2,068	..	6	925	6,187
Charges for Services and Sales of Products ..	825	..	1,835	2	35	177	2,874
Other (including Grants) ..	(a) 857	6	417	..	3	175	1,458
<i>Total</i>	4,562	314	4,320	2	44	1,277	10,519
<i>Electricity and Gas—</i>							
Rates	361	..	6	1	..	..	368
Charges for Services and Sales of Products ..	62,170	15,093	6,676	462	722	..	85,123
Other (including Grants) ..	1,817	206	196	56	3	..	2,278
<i>Total</i>	64,348	15,299	6,878	519	725	..	87,769
<i>Railways, Tramways and Omnibuses—</i>							
Rates .. .. .	..	..	..	..	..	..	..
Charges for Services and Sales of Products ..	..	..	3,660	..	..	..	3,660
Other (including Grants) ..	..	..	150	..	..	..	150
<i>Total</i> .. .. .	..	..	3,810	..	..	..	3,810
<i>Other—</i>	(b)	(c)	(d)	(e)	(f)	(g)	..
Rates	11	..	11	..	52	..	74
Charges for Services and Sales of Products ..	3,823	875	294	77	54	207	5,330
Other (including Grants) ..	46	17	16	3	21	3	106
<i>Total</i>	3,880	892	321	80	127	210	5,510
Grand Total	72,790	16,505	15,329	601	896	1,487	107,608
EXPENDITURE (EXCLUDING LOAN EXPENDITURE).							
<i>Water Supply and Sewerage—</i>							
Working Expenses	2,067	238	1,963	4	24	601	4,897
Depreciation	(h) 325	17	..	..	..	..	308
Debt Charges	1,771	43	1,751	..	14	603	4,182
Other (including Transfers to General Revenue and Construction) ..	..	5	573	..	..	92	670
<i>Total</i>	3,513	303	4,287	4	38	1,296	9,441
<i>Electricity and Gas—</i>							
Working Expenses	54,417	13,478	4,193	411	573	..	73,072
Depreciation	(h) 1,363	443	..	..	60	..	1,866
Debt Charges	6,625	454	1,962	41	65	..	9,147
Other (including Transfers to General Revenue and Construction) ..	..	591	499	81	31	..	1,202
<i>Total</i>	62,405	14,966	6,654	533	729	..	85,287
<i>Railways, Tramways and Omnibuses—</i>							
Working Expenses .. .. .	..	..	3,730	..	..	..	3,730
Depreciation .. .. .	..	..	..	..	..	..	..
Debt Charges .. .. .	..	..	439	..	..	..	439
Other (including Transfers to General Revenue and Construction) ..	..	..	155	..	..	..	155
<i>Total</i> .. .. .	..	..	4,324	..	..	..	4,324
<i>Other—</i>	(b)	(c)	(d)	(e)	(f)	(g)	..
Working Expenses	3,550	756	153	86	38	131	4,714
Depreciation	25	33	..	..	..	..	58
Debt Charges	135	69	39	..	1	18	262
Other (including Transfers to General Revenue and Construction) ..	..	75	24	2	79	26	206
<i>Total</i>	3,710	933	216	88	118	175	5,240
Grand Total	69,628	16,202	15,481	625	885	1,471	104,292

(a) Includes Government grant, £547,000, for part of cost of new works borne by Government.
 (b) Abattoirs, and production of building materials. (c) Abattoirs, hydraulic power undertakings, quarries and iceworks. (d) Off-street car parking, municipal markets, amusement parks, hotels, and cinemas. (e) Quarries and hospitals. (f) Quarries, abattoirs and vermin control. (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 following 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 1955-56 to 1959-60.

LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS—REVENUE AND EXPENDITURE.
(£'000.)

Year ended 30th June—	N.S.W.(a)	Victoria.(b)	Q'land.	S. Aust.	W. Aust.(c)	Tas.	Total.
REVENUE (EXCLUDING LOAN RECEIPTS).							
1956 ..	51,312	9,995	(d)	592	628	833	(d)
1957 ..	55,392	11,462	12,651	527	644	988	81,664
1958 ..	61,526	13,021	13,175	548	702	1,151	90,123
1959 ..	66,378	15,242	14,113	563	771	1,272	98,339
1960 ..	72,790	16,505	15,329	601	896	1,487	107,608

EXPENDITURE (EXCLUDING LOAN EXPENDITURE).

1956 ..	48,442	9,800	(d)	576	627	846	(d)
1957 ..	53,470	11,105	13,118	510	637	934	79,774
1958 ..	58,007	12,541	13,533	561	704	1,123	86,469
1959 ..	63,777	14,815	14,296	556	747	1,269	95,460
1960 ..	69,628	16,202	15,481	625	885	1,471	104,292

(a) Years ended previous 31st December. (b) Years ended 30th September. (c) Municipalities—Years ended 31st October; Road Districts—Years ended 30th June. (d) Not available.

(iv) *Loan Expenditure.* The tables below show particulars for 1959-60 of loan expenditure on works connected with the ordinary services and the business undertakings of local government authorities.

LOCAL GOVERNMENT AUTHORITIES: LOAN EXPENDITURE, 1959-60.
(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
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ORDINARY SERVICES.

Roads, Bridges, Streets, Footpaths, Drainage and Sewerage	3,469	2,846	6,331	933	982	586	15,147
Council Properties	(a) 2,612	(a) 912	} (a) 1,807	{ 125	(a) 488	(a) 385	} 7,586
Parks, Gardens and Recreational Reserves	466	368						95	248	80
Other	(b) 454	607	342	4	101	58	1,566
Total	7,001	4,733	8,480	1,157	1,819	1,109	24,299

BUSINESS UNDERTAKINGS.

Water Supply	1,379	189	3,832	..	.. 19	} 1,226	7,418
Sewerage	773	..	..	..	..
Electricity and Gas	10,455	1,089	2,135	58	59	..	13,796
Railways, Tramways and Omnibuses .. ..	..	..	333	..	..	..	333
Abattoirs	169	36	..	..	..	..	205
Other .. ..	..	5	4	..	..	..	9
Total	12,776	1,319	6,304	58	78	1,226	21,761
Grand Total	19,777	6,052	14,784	1,215	1,897	2,335	46,060

(a) Includes plant. (b) Includes advances for homes, £106,000.

NOTE.—For years to which particulars relate. see following table.

The following table shows the loan expenditure on works connected with local government ordinary services and business undertakings during the years 1955–56 to 1959–60.

LOCAL GOVERNMENT AUTHORITIES: LOAN EXPENDITURE.
(£'000.)

Year ended 30th June—	N.S.W.(a)	Victoria.(b)	Q'land.	S. Aust.	W. Aust.(c)	Tas.	Total.
ORDINARY SERVICES.							
1956 ..	6,100	3,088	(d)	1,112	1,486	477	(d)
1957 ..	5,857	3,711	4,596	924	1,334	580	17,002
1958 ..	5,644	4,215	5,673	1,077	1,580	455	18,644
1959 ..	5,941	4,313	6,225	1,313	2,093	812	20,697
1960 ..	7,001	4,733	8,480	1,157	1,819	1,109	24,299
BUSINESS UNDERTAKINGS.							
1956 ..	9,569	1,140	(d)	25	49	888	(d)
1957 ..	9,656	1,300	5,348	58	36	761	17,159
1958 ..	11,024	1,796	5,022	99	159	1,163	19,263
1959 ..	11,645	1,505	6,464	54	144	958	20,770
1960 ..	12,776	1,319	6,304	58	78	1,226	21,761

(a) Years ended previous 31st December. (b) Years ended 30th September. (c) Municipalities—Years ended 31st October; Road Districts—Years ended 30th June. (d) Not available.

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

1. **General.**—Statistics of local and semi-governmental debt for the years 1955–56 to 1959–60 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, and 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, and Miscellaneous.

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

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

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

Tasmania. Harbours, Electricity Supply, Fire Brigades, Transport, and Housing.

A detailed list of the authorities included is shown in *Finance, Part I.—Public and Private Finance, Bulletin No. 52, 1960–61.*

2. **Local and Semi-Governmental Authorities' Debt.**—The following table provides a summary of new money loan raisings, provisions for debt redemption, debt outstanding and interest payable by local and semi-governmental authorities for the year ended 30th June, 1960. For greater detail, see *Finance, Part I.—Public and Private Finance, Bulletin No. 52, 1960–61.*

LOCAL AND SEMI-GOVERNMENTAL AUTHORITIES: NEW MONEY LOAN RAISINGS, REDEMPTION, DEBT AND INTEREST PAYABLE, 1959-60.

(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
LOCAL GOVERNMENT AUTHORITIES.							
<i>New Money Loan Raisings—</i>							
From Government ..	34	295	1,592	331	68	290	2,610
From Public ..	10,063	7,004	11,214	1,018	2,455	2,326	34,080
<i>Total</i> ..	<i>10,097</i>	<i>7,299</i>	<i>12,806</i>	<i>1,349</i>	<i>2,523</i>	<i>2,616</i>	<i>36,690</i>
<i>Funds Provided for Redemption—</i>							
Government Loans ..	53	77	998	333	49	24	1,534
Loans due to Public ..	4,786	2,431	4,262	253	933	527	13,192
<i>Total</i> ..	<i>4,839</i>	<i>2,508</i>	<i>5,260</i>	<i>586</i>	<i>982</i>	<i>551</i>	<i>14,726</i>
Accumulated Sinking Fund Balance ..	4,584	3,166	7,286	..	69	211	15,316
<i>Debt—</i>							
Due to Government ..	1,916	1,618	13,998	1,325	323	639	19,819
Due to Banks (Net Overdraft) ..	12	434	..	..	19	..	465
Due to Public Creditor(a) ..	73,667	41,000	89,382	5,365	11,180	12,933	233,527
<i>Total(a)</i> ..	<i>75,595</i>	<i>43,052</i>	<i>103,380</i>	<i>6,690</i>	<i>11,522</i>	<i>13,572</i>	<i>253,811</i>
Maturing Overseas(a)(b) ..	1,812	..	2,290	..	..	..	4,102
Annual Interest Payable(a) ..	(c)	2,099	4,869	301	585	668	(c)

SEMI-GOVERNMENTAL AND PUBLIC AUTHORITIES.

<i>New Money Loan Raisings—</i>							
From Government ..	16,259	17,919	1,356	8,201	3,135	7,655	54,525
From Public ..	24,267	45,450	10,552	3,851	1,014	1,156	86,290
<i>Total</i> ..	<i>40,526</i>	<i>63,369</i>	<i>11,908</i>	<i>12,052</i>	<i>4,149</i>	<i>8,811</i>	<i>140,815</i>
<i>Funds Provided for Redemption—</i>							
Government Loans ..	1,700	2,099	489	1,054	1,245	694	7,281
Loans due to Public ..	6,880	5,438	4,504	18	307	392	17,539
<i>Total</i> ..	<i>8,580</i>	<i>7,537</i>	<i>4,993</i>	<i>1,072</i>	<i>1,552</i>	<i>1,086</i>	<i>24,820</i>
Accumulated Sinking Fund Balance ..	28,241	11,818	6,371	1,179	437	601	48,647
<i>Debt—</i>							
Due to Government ..	173,821	204,036	16,594	117,140	42,858	85,534	639,983
Due to Banks (Net Overdraft) ..	3,462	223	682	45	3	..	4,415
Due to Public Creditor(a) ..	266,555	429,547	76,103	32,379	18,480	15,201	838,265
<i>Total(a)</i> ..	<i>443,838</i>	<i>633,806</i>	<i>93,379</i>	<i>149,564</i>	<i>61,341</i>	<i>100,735</i>	<i>1,482,663</i>
Maturing Overseas(a)(b) ..	5,000	4,323	..	..	..	..	9,323
Annual Interest Payable(a) ..	(c)	28,112	4,511	6,272	2,821	4,274	(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 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 from the public 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 1955-56 to 1959-60.

LOCAL AND SEMI-GOVERNMENTAL AUTHORITIES, AUSTRALIA: NEW MONEY LOAN RAISINGS, REDEMPTION AND DEBT.
(£'000.)

Particulars.	1955-56.	1956-57.	1957-58.	1958-59	1959-60.
LOCAL GOVERNMENT AUTHORITIES.					
<i>New Money Loan Raisings—</i>					
From Government	2,233	1,624	1,775	1,993	2,610
From Public	22,160	25,046	27,445	29,662	34,080
<i>Total</i>	<u>24,393</u>	<u>26,670</u>	<u>29,220</u>	<u>31,655</u>	<u>36,690</u>
<i>Funds provided for Redemption—</i>					
Government Loans	1,555	1,569	1,578	1,491	1,534
Loans due to Public	8,597	9,222	9,120	11,403	13,192
<i>Total</i>	<u>10,152</u>	<u>10,791</u>	<u>10,698</u>	<u>12,894</u>	<u>14,726</u>
Accumulated Sinking Fund Balance	11,955	12,865	13,710	14,106	15,316
<i>Debt—</i>					
Due to Government	17,907	17,753	17,922	18,805	19,819
Due to Banks (Net Overdraft)	948	637	448	686	465
Due to Public Creditor(a)	169,891	182,834	195,190	211,540	233,527
<i>Total(a)</i>	<u>188,746</u>	<u>201,224</u>	<u>213,560</u>	<u>231,031</u>	<u>253,811</u>
Maturing Overseas(a)(b)	4,431	4,349	4,267	4,184	4,102
SEMI-GOVERNMENTAL AND OTHER PUBLIC AUTHORITIES.					
<i>New Money Loan Raisings—</i>					
From Government	53,482	51,644	56,948	54,242	54,525
From Public	58,674	62,777	73,924	73,689	86,290
<i>Total</i>	<u>112,156</u>	<u>114,421</u>	<u>130,872</u>	<u>127,931</u>	<u>140,815</u>
<i>Funds provided for Redemption—</i>					
Government Loans	6,866	3,978	6,829	8,244	7,281
Loans due to Public	7,552	10,496	15,041	12,934	17,539
<i>Total</i>	<u>14,418</u>	<u>14,474</u>	<u>21,870</u>	<u>21,178</u>	<u>24,820</u>
Accumulated Sinking Fund Balance	25,311	29,702	35,500	41,882	48,647
<i>Debt—</i>					
Due to Government	446,112	492,929	542,817	592,436	639,983
Due to Banks (net Overdraft)	9,994	6,402	5,900	6,410	4,415
Due to Public Creditor(a)	560,074	623,744	695,574	762,611	838,265
<i>Total(a)</i>	<u>1,016,180</u>	<u>1,123,075</u>	<u>1,244,291</u>	<u>1,361,457</u>	<u>1,482,663</u>
Maturing Overseas(a)(b)	13,556	12,112	9,337	9,330	9,323

(a) 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. (b) Included in debt figures above.

§ 4. Roads and Bridges.

1. Commonwealth Government Grants.—The following table shows the allocation to the States under the several Commonwealth Aid Roads Acts, for road construction, maintenance, repair and other works connected with transport for each of the years 1956–57 to 1960–61, and to the Commonwealth for expenditure on the construction and maintenance of strategic roads and for the promotion of road safety practices for each of the years 1956–57 to 1958–59. After 1st July, 1959, when the Commonwealth Aid Roads Act 1959 came into operation, the Commonwealth made separate provision for expenditure on strategic roads and the promotion of road safety practices. See also Chapter XXI.—Public Finance, and *Finance* bulletins.

ROAD CONSTRUCTION, MAINTENANCE, ETC.: GRANTS UNDER THE
COMMONWEALTH AID ROAD ACTS.
(£'000.)

Year ended 30th June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth. (a)	Total.
1957 ..	8,587	5,495	6,009	3,509	6,105	1,563	950	32,218
1958 ..	9,495	6,264	6,585	3,879	6,658	1,733	1,000	35,614
1959 ..	9,930	6,543	6,890	4,056	6,967	1,813	1,000	37,199
1960 ..	12,172	8,660	8,021	4,922	7,964	2,184	..	43,923
1961 ..	12,870	9,184	8,428	5,128	8,090	2,300	..	46,000

(a) In the years prior to 1959–60, allocations under the Commonwealth Aid Roads Act 1954–56 for expenditure on the construction and maintenance of strategic roads and the promotion of road safety practices.

2. New South Wales.—(i) *General.* A central road authority, known as the Main Roads Board, was created by legislation in 1925 for the purpose of providing improved and uniform standards of construction, reconstruction and maintenance of the principal roads of the State and to administer government subsidies for works on those roads. In 1932, the Main Roads administration was reorganized as a separate department under the control of a Commissioner. The activities of the Department of Main Roads embrace works on main and developmental roads throughout the State, all roads in the unincorporated portion of the Western Division, and certain associated works, principally bridges and vehicular ferries, constructed from government funds. The Department of Main Roads co-operates with the municipal and shire councils in the work of constructing and maintaining the main roads system.

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 the representations made by the councils concerned, availability of funds for construction and maintenance purposes, and the value of the roads as connecting links between centres of population or business. The classes of main roads are (i) the State highways, which form the principal avenues of road communication throughout the State and connect with similar avenues in other States; (ii) trunk roads, which, with the State highways, form the framework of a general system of intercommunication throughout the State; (iii) ordinary main roads, which provide a network of roads connecting towns and important centres of population with the State highways and trunk roads and with each other. In addition to the main roads, there are also (i) secondary roads (in the County of Cumberland), which carry a substantial volume of through traffic and thereby relieve neighbouring main roads of traffic and (ii) developmental roads, which help to develop country districts.

In the County of Cumberland, which for the purposes of the Main Roads Act is deemed to include the City of Blue Mountains and small sections of other councils' areas on the boundary of the County of Cumberland, the full cost of road and bridge construction is paid from the funds of the Department of Main Roads. The Councils contribute towards the cost at the rate of $\frac{1}{4}$ d. in the £ on the unimproved value of ratable property. The rate payable in respect of lands used principally for primary production is one-half the rate levied on other lands. In country districts, the Department meets the full cost of road and bridge works on State highways, the full cost of bridge works and three-quarters of the cost of road works on trunk roads, and three-quarters of the cost of bridge works and two-thirds of the cost of road works on ordinary main roads. The cost of constructing developmental roads and works is borne in full by the Department of Main Roads, but local Councils are required to maintain them in a satisfactory condition. The Department of Main Roads meets half the cost of works on secondary roads.

(ii) *Length of Roads.* (a) *Proclaimed Roads.* The total length of proclaimed roads in New South Wales at 30th June, 1961, was 25,364 miles classified as:—State highways, 6,497 miles; trunk roads, 4,162 miles; ordinary main roads, 11,651 miles; secondary roads,

92 miles; and developmental roads, 2,962 miles. The length of proclaimed main roads was altered slightly because of the proclamation and re-routing of short lengths of road.

During 1960–61, 244 miles of new development roads were proclaimed and 149 miles were removed from the list of proclaimed developmental roads.

The length of main and secondary roads maintained by the Department of Main Roads at 30th June, 1961, was 5,085 miles (23 per cent.), while the length maintained by councils was 17,317 miles (77 per cent.). The proportions of main roads maintained by the Department and councils respectively were:—State highways, 62 per cent., 38 per cent; trunk and ordinary main roads, 7 per cent., 93 per cent. Secondary roads were maintained wholly by councils. In the County of Cumberland (the metropolis and adjoining areas), the Department maintained 56 per cent. of the roads (528 miles).

(b) *Surface of Roads.* In 1960, the total length of all roads in New South Wales was estimated at 129,752 miles. The lengths of roads, according to their surface, were as follows:—bitumen or concrete, 18,476 miles; gravel or stone, 46,775 miles; formed only, 26,966 miles; cleared only, 37,535 miles.

(iii) *Main Roads Department. (a) General.* Progress has continued with the implementation of the Department's plan for main roads development in the County of Cumberland. Most of the Department's proposals have been incorporated in the County of Cumberland Planning Scheme approved by Parliament under the Local Government (Amendment) Act 1951.

The Department's proposals for the development of the main roads system in Newcastle and the surrounding districts have been largely incorporated in the Northumberland County District Planning Scheme, and some sections of the system have been constructed.

With some modifications, the Department's proposals for the planning of the main roads in the Wollongong-Port Kembla district have been incorporated in the planning scheme prepared by the Illawarra Planning Authority.

During 1960–61, 50 new bridges were constructed. In addition, 63 concrete box culverts each having a waterway width of 20 feet or more were completed. Major bridge works under construction include steel and/or concrete bridges over the Cook's River at Tempe on the Prince's Highway (length 300 feet); over the Hastings River near Blackman's Point on the Pacific Highway (length 1,535 feet); over Ironbark Creek at Hexham (duplicate bridges each 320 feet long); over the Richmond River at Lismore (688 feet); over the Parramatta River at Gladesville (1,900 feet); over the Parramatta River at Silverwater (652 feet); over the Lane Cove River at Fig Tree (749 feet); over the Darling River at Tilpa (407 feet); and over the Hunter River at Maitland (Belmore Bridge, 643 feet).

(b) *Revenue and Expenditure.* The funds of the Department of Main Roads are derived principally from (1) motor vehicle taxation; (2) charges on heavy commercial goods vehicles under the Road Maintenance (Contribution) Act 1958; (3) grants under Commonwealth Aid Roads Acts (*see* para. 1 above and Chapter XXI.—Public Finance); (4) other grants from the State or Commonwealth Governments; and (5) proceeds of a levy on municipal and shire councils in the Country of Cumberland in accordance with the Main Roads Act 1924–1958. The State Government also makes repayable advances for Main Roads Department works.

Revenue and expenditure for the five years 1956–57 to 1960–61 are shown below.

**DEPARTMENT OF MAIN ROADS, NEW SOUTH WALES:
REVENUE AND EXPENDITURE.**

(£.)

Item.	1956–57.	1957–58.	1958–59.	1959–60.	1960–61.
REVENUE. (a)					
Motor Vehicle Taxation, Registration and Licence Fees	7,944,583	8,444,589	10,727,126	11,850,477	12,432,316
Commonwealth Aid Roads Act ..	5,165,020	6,468,726	6,926,549	7,719,608	8,239,061
State and Commonwealth Grants ..	..	453,750	357,500	638,750	375,000
Contributions by Other Departments and Bodies	275,453	305,153	240,412	360,978	382,689
Councils' Contributions	971,198	1,119,731	1,384,927	1,649,122	1,858,878
Other	27,618	45,296	46,204	83,179	154,816
Total	14,383,872	16,837,245	19,682,718	22,302,114	23,442,760

NOTE.—See next page for footnotes.

DEPARTMENT OF MAIN ROADS, NEW SOUTH WALES: REVENUE AND EXPENDITURE—*continued.*

(£.)

Item.	1956-57.	1957-58.	1958-59.	1959-60.	1960-61.
EXPENDITURE.(b)					
Roads and Bridges—					
Construction	7,834,998	9,464,733	10,508,109	13,883,723	17,731,562
Maintenance	6,174,524	6,096,227	5,908,649	6,352,014	6,137,466
Administration	562,056	614,098	705,745	824,203	912,675
Interest, Exchange, etc., on Debt ..	171,242	184,067	190,789	202,439	227,238
Other(c)	106,124	202,179	212,895	351,394	542,127
Total	14,848,944	16,561,304	17,526,187	21,613,773	25,551,068

(a) Excludes repayable advances by the State Government (£448,073 in 1956-57, £150,000 in 1957-58, £800,000 in 1959-60 and £575,000 in 1960-61) and transfer from Sydney Harbour Bridge Account for Expressway construction (£100,000 in 1958-59, £362,000 in 1959-60, and £768,000 in 1960-61). Expenditure from these amounts is fully reflected in Expenditure. (b) Excludes debt redemption £38,677 in 1956-57, £39,966 in 1957-58, £340,790 in 1958-59, £45,981 in 1959-60, and £448,816 in 1960-61. (c) Mainly purchase of assets not subject to annual depreciation charge. The purchase of other assets is omitted here because the depreciation charge for them is reflected each year in "Roads and Bridges".

The figures shown above represent the aggregate revenue and expenditure of five funds—the County of Cumberland Main Roads General and Special Purposes Funds, the Country Main Roads General and Special Purposes Funds, and the Developmental Roads Fund.

(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 of eight traffic lanes and two railway tracks, and there is also a footway on each side. The capital cost of the bridge and associated roadways to 30th June, 1961, was £11,786,864, but this amount will be reduced slightly on completion of the disposal of the remaining surplus resumed property. The portion met from repayable loan funds, over £10,100,000, is repayable from toll income. The accumulated surpluses of the Bridge Account have been used to make transfers to a Reserve Account (£2,405,000) and from 1958-59 to 1960-61 to convert tram tracks to roadway (£759,879) and construct expressways (£685,000). The Account showed a deficiency of £590,274 at 30th June, 1961. In 1960-61, income amounted to £1,654,000, including road tolls, £1,470,760, railway passenger tolls, £141,149 and omnibus passenger tolls, £16,125. Expenditure amounted to £1,529,000, including interest, exchange, flotation expenses, etc., £883,530, sinking fund, £164,520, maintenance £252,900, and major improvements £24,778. Expenditure from accumulated surpluses on major improvements amounted to £765,748 in 1960-61, including £95,000 from the Harbour Bridge Reserve Account. During 1960-61, 28,387,000 road vehicles (excluding omnibuses and exempt vehicles), 25,097,000 rail travellers and 14,706,000 omnibus travellers crossed the bridge, contributing respectively 90 per cent., 9 per cent., and 1 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.

Following the preparation by the Melbourne and Metropolitan Board of Works of a Planning Scheme for the metropolitan area of Melbourne, and the appreciation of the general principle that where practicable it is desirable for the responsibility for the implementation of planning scheme proposals to be with the Planning Authority, the Melbourne and Metropolitan Board of Works Act was amended in June, 1956, making the Melbourne and Metropolitan Board of Works responsible for the construction and maintenance of such metropolitan highways and bridges as are declared for this purpose.

(ii) *Length of Roads.* (a) *Declared Roads.* The total length of declared roads in Victoria at 30th June, 1961, was 14,512 miles, classified as follows:—State highways, 4,502 miles; main roads, 9,111 miles; by-pass roads, 9 miles; tourist roads, 426 miles; forest roads, 464 miles. The length of the surface treated (black) or higher type of pavements included in the foregoing mileage was 11,012 miles or 76 per cent. of the total.

(b) *Surface of Roads.* It is estimated that, in addition to the 14,512 miles of classified roads as above, there were approximately 87,000 miles of unclassified roads at 30th June, 1961. The latest detailed estimate of the length of roads and streets in Victoria (as at 30th September, 1960) provides the following information:—bitumen or concrete, 19,426 miles; gravel or stone, 32,392 miles; formed only, 23,443 miles; cleared only, 26,190 miles; total, 101,451 miles.

(iii) *Country Roads Board.* (a) *General.* During 1960–61, 1,887 miles of declared roads under the Board's control were treated with bitumen. In addition, 797 miles of undeclared roads, for which the Board contributed funds, were similarly treated. The total length of bitumen treatment carried out in 1960–61 was 2,783 miles (including 99 miles for other authorities). Of the work on the roads under the Board's control in 1960–61, 746 miles related to State highways and by-pass roads.

During 1960–61, 211 bridge projects with a total value of £1,724,000 were initiated. Of these, 136, costing £864,000, were under municipal supervision.

(b) *Receipts and Payments.* The funds of the Country Roads Board are derived principally from motor registration fees, two thirds of all money received by way of owners' certificates, one half of drivers' licence fees, fines, payments by the Commonwealth Government under the Commonwealth Aid Roads Acts, road charges under the Commercial Goods Vehicles Act and repayments by municipalities. In addition, loans have been authorized from time to time under the Country Roads Acts for permanent works on main and developmental roads, State highways, tourists' roads and forest roads, while the State Government has provided, free of repayment, loan moneys for restoration of flood and bush fire damage. During the year ended 30th June, 1961, loan receipts and payments each amounted to £283,000, and expenditure included £966 for restoration of flood and bush fire damage. The total loan expenditure to 30th June, 1961, was £14,670,183. This figure does not include loan expenditure from the Developmental Roads Loan Account, a fund which 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 1956–57 to 1960–61 are shown below.

COUNTRY ROADS BOARD, VICTORIA: RECEIPTS AND PAYMENTS.

(£.)

Item.	1956–57.	1957–58.	1958–59.	1959–60.	1960–61.
RECEIPTS.					
Motor Vehicle Registration Fees (a)	6,211,564	8,013,268	8,340,079	8,941,256	9,282,073
Drivers' Licence Fees(a)	207,892	219,342	(b)284,994	(b)452,324	(b)256,673
Drivers' Licence Testing Fees .. ..	..	..	..	..	38,969
Municipalities' Payments	530,418	560,092	685,773	723,803	788,663
Commonwealth Aid Roads Acts(c) ..	5,247,438	6,158,907	6,870,975	8,460,574	8,983,776
Loans from State Government	404,679	402,822	75,834	160,000	283,000
Commonwealth-State Contribution for restoration of flood damage ..	236,641	460,452	53,171	5,124	966
Road Charges—Commercial Goods Vehicles Act	1,314,784	1,529,236	1,873,424	2,117,494	2,254,421
Other	28,173	37,114	30,263	43,994	50,223
Total	14,181,589	17,381,233	18,214,513	20,904,569	21,938,764

NOTE.—See next page for footnotes.

COUNTRY ROADS BOARD, VICTORIA: RECEIPTS AND PAYMENTS—*continued.*
(£.)

Item.	1956-57.	1957-58.	1958-59.	1959-60.	1960-61.
PAYMENTS.					
Construction and Maintenance of Roads and Bridges—					
State Highways	4,079,366	4,988,708	5,357,732	5,852,042	6,880,998
Main Roads	3,921,041	5,428,679	5,536,431	6,259,203	5,919,265
By-pass Roads .. .. .	..	..	28,579	266,880	1,096,742
Tourist Roads	285,127	457,735	453,877	551,088	600,132
Forest Roads	116,388	127,775	190,652	192,060	275,365
Unclassified Roads	2,508,782	3,615,378	3,371,433	3,974,049	4,228,144
Other	72,895	107,469	82,899	124,589	88,612
Plant, Stores and Materials	620,626	1,053,254	712,974	1,028,042	708,141
Interest, Debt Redemption, etc.	792,321	831,077	862,583	875,034	888,244
Repayment of Advance	500,000	..	..	..	..
Office Building, Kew—Capital Cost .. .. .	..	..	..	452,275	528,123
Statutory Payment to Tourists' Resorts Fund	76,284	108,780	144,770	151,737	187,872
Administration and Other	882,435	860,760	1,004,542	1,221,756	1,177,903
Total	13,855,265	17,579,615	17,746,472	20,948,755	22,579,541

(a) After costs of collection. Since 1950, one half of the drivers' licence fees has been credited to the funds of the Country Roads Board while the remaining half has been credited to the Municipalities Assistance Fund. (b) Owing to the gradual change-over in currency of drivers' licences from one year to two and three years revenue from drivers' licences increased slightly in 1958-59, reached a peak in 1959-60 and declined to almost normal level in 1960-61. (c) Excludes portion of Commonwealth Aid Roads Acts advances drawn by the Public Works Department for expenditure on wharfs, jetties, etc.

(iv) *Melbourne and Metropolitan Board of Works.* Since assuming responsibility for carrying-out planning scheme proposals relating to metropolitan highways and bridges, a tentative £20,000,000 construction programme of urgent highway works throughout the metropolitan area of Melbourne has been adopted and is being progressively implemented by the Board of Works. Expenditure on these projects up to 30th June, 1961, was £1,181,550.

(v) *Level Crossings.* In 1954-55, the Level Crossings Fund was created under the Country Roads and Level Crossings Funds' Act 1954 to finance (a) the elimination of level crossings or the provision of alternative routes to enable road traffic to avoid level crossings, (b) the provision of lights, signs, and lighting at, and the improvement of approaches to, level crossings and (c) generally, the reduction of danger at level crossings. The Act provides for the payment into the Fund of one third of all moneys received by way of additional motor registration fees (owner's certificates) and money provided under any other Act. The amount available for expenditure in 1960-61 was £603,255, comprising receipts from owners' certificates, £296,151, and the balance brought forward from 1959-60, £307,104. Expenditure from the Fund amounted to £583,519, of which £388,328 was incurred by the Railways Department and the balance by the Country Roads Board.

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 financed by the State Government by means of Treasury loans. Other roads may be 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, 1960, was 20,742 miles, comprising State highways, 8,252 miles; main roads, 10,460 miles; developmental roads, 230 miles; and secondary roads, 1,800 miles. By the amendments to the Main Roads Acts published in the Government Gazette of 6th April, 1959, mining access, farmers' and tourist roads became secondary roads, and the provisions relating to the declaration of tourist tracks were repealed.

(b) *Surface of Roads.* The total length of roads and streets in Queensland at 30th June, 1961, was:—bitumen or concrete, 10,141 miles; gravel or stone, 20,515 miles; formed only, 40,768 miles; cleared only, 49,072 miles; total, 120,496 miles.

(iii) *Department of Main Roads.* (a) *General.* During 1959–60, the Department completed 1,175 miles of roads, including new construction and stage construction. Bridges of all types to a length of 7,153 linear feet were constructed, bringing the total constructed by the Department at 30th June, 1960, to 209,549 feet. In addition, at 30th June, 1960, 5,388 feet were under construction.

(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 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 1955–56 to 1959–60 are shown below.

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

Item.	1955–56.	1956–57.	1957–58.	1958–59.	1959–60.
RECEIPTS.					
Motor Vehicle Registration, Transport Acts Collections, Fees, etc. . .	4,342,483	4,608,807	4,797,882	5,036,414	5,404,547
Loans from State Government . .	380,000	..	125,000	621,865	..
Grants, Advances, Refunds, etc. from State Government . . . .	..	..	47,414	241,861	325,755
Commonwealth Aid Roads and Works Acts	5,135,202	6,012,899	7,020,237	7,353,215	7,912,040
Maintenance Repayments—Local Authorities	406,998	590,885	611,124	648,882	707,813
Hire, Rent, Sales of Plant, etc. . .	765,687	882,316	945,525	1,126,739	1,250,205
Other	415,931	405,555	479,362	548,287	601,415
Total	11,446,301	12,500,462	14,026,544	15,577,263	16,201,775
PAYMENTS.					
Permanent Road Works and Surveys	6,344,024	7,953,553	8,027,715	8,680,460	11,380,919
Maintenance of Roads	2,521,193	2,372,221	2,556,029	2,790,004	2,890,698
Plant, Machinery, Buildings, etc. (including Plant Maintenance) . .	1,070,648	1,287,443	1,239,085	1,000,793	1,345,167
Loans—Interest	253,050	242,592	208,498	198,098	156,542
Redemption	255,224	256,048	256,287	330,561	329,722
Administration and Other . . .	907,224	1,022,760	1,061,891	1,157,569	1,270,686
Total	11,351,363	13,134,617	13,349,505	14,157,485	17,373,734

5. South Australia.—(i) *General.* The Highways and Local Government Department is administered by the Commissioner of Highways, who is empowered, subject to the approval of the Minister of Roads, to—

- (a) undertake the construction, maintenance and protection of the principal roads of the State,
- (b) allocate grants to councils for roadworks and supervise the expenditure of these grants,
- (c) assist Councils to purchase road-making plant and to defray the cost of roadworks.

In addition, the Commissioner advises Councils on technical questions concerning the construction, maintenance or repair of roads.

(ii) *Source of Funds.* Funds of the Department are derived mainly from—

- (a) *State Government*—the Highways Fund, into which are paid the proceeds from motor vehicle registration and drivers' licences (less cost of collection), appropriations from loan funds, repayments of advances made to Councils and contributions by the Municipal Tramways Trust.
- (b) *Commonwealth Government*—contributions under the Commonwealth Aid Roads Acts.

(iii) *Length of Roads.* In South Australia, there are only two classifications of roads. These are main roads proclaimed under the provisions of the Highways Act and all other roads, commonly designated district roads. At 30th June, 1961, there were 8,188 miles of proclaimed main roads and 54,350 miles of district roads, totalling 62,538 miles. Lengths of road classified by surface were as follows:—Bitumen or concrete, 5,333 miles; gravel or stone, 13,586 miles; formed only, 15,326 miles; cleared only, 28,293 miles.

(iv) *State Highways and Local Government Department, Receipts and Payments.* The following table shows particulars of receipts and payments, during the years 1956–57 to 1960–61, of funds controlled by the Highways and Local Government Department.

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

(£.)

Item.	1956–57.	1957–58.	1958–59.	1959–60.	1960–61.
RECEIPTS.					
Motor Vehicle Registration, Licences, Fees	3,404,557	3,470,933	3,748,763	3,942,087	4,111,494
Commonwealth Aid Roads Acts	3,447,075	3,907,129	4,361,892	4,923,122	5,128,065
Loans from State Government	10,000	15,000	..	85,000	90,000
Other	450,979	470,150	443,577	445,484	449,333
Total	7,312,611	7,863,212	8,554,232	9,395,693	9,778,892
PAYMENTS.					
Construction and Reconstruction of Roads and Bridges	3,571,052	3,738,544	5,096,450	6,113,227	6,465,892
Maintenance	1,856,560	2,123,008	2,174,320	2,183,012	2,095,253
Recoups to Consolidated Revenue Fund—Interest, Debt Redemption and Exchange	189,150	202,646	205,361	213,631	215,539
Advances to Local and Semi-Governmental Authorities	263,705	293,349	464,723	301,929	702,718
Administration	457,583	524,374	(a)	(a)	(a)
Stores, Plant, Machinery, Suspense Accounts, etc.	1,011,212	778,875	514,886	439,732	495,036
Total	7,349,262	7,660,796	8,455,740	9,251,531	9,974,438

(a) Administrative Expenses, amounting to £596,876 in 1958–59, £735,738 in 1959–60, and £844,780 in 1960–61, have been charged to "Construction and Reconstruction of Roads and Bridges" and to "Maintenance".

The total expenditure, both revenue and loan, by State and local governments on roads, streets and bridges in South Australia during the years 1956–57 to 1959–60 was, respectively £9,228,000, £9,889,000, £10,556,000 and £12,277,000.

6. *Western Australia.*—(i) *General.* Work connected with road construction and maintenance and associated projects in Western Australia is undertaken by the State Government, through the Main Roads Department, and by local government authorities throughout the State.

Under the provisions of the Main Roads Act, the Main Roads Department was established in 1930 to replace the Main Roads Board originally constituted as a central road authority in 1926. The Department operates under the Main Roads Act 1930–1959, and is administered by a Commissioner of Main Roads responsible to the Minister for Works. The Act makes provision for public roads in the categories of “main” roads, “controlled-access” roads and “developmental” roads. An additional category, that of “important secondary” roads, is used by the Department in determining its works programme.

Main roads are those which provide communication between a large producing area, either actual or potential, and its market or nearest port or railway station; between two or more such areas; between large centres of population; or between the capital city and a large producing area or a large centre of population. Controlled-access roads do not permit direct access from abutting property and may be entered and departed from only at certain selected road connexions located at points which are considered to serve best the traffic for which the controlled access roads were designed. Developmental roads are those which serve to initiate or increase the development of an area. Important secondary roads are those which, though originally classified as developmental, have come to be used consistently by through traffic and therefore warrant a special allocation of funds by the Main Roads Department. The Act provides that, on the recommendation of the Commissioner, any road may be proclaimed a main road and any main road may cease to be a main road.

The construction and maintenance of main roads and controlled-access roads are the responsibility of the Main Roads Department. The Department also makes substantial financial provision for the construction and maintenance of important secondary roads and for the construction of developmental roads. The construction and maintenance of strategic roads and roads of access to Commonwealth property is undertaken for the Commonwealth Government by the Department.

Within its own district, each local government authority is responsible for the provision and upkeep of roads other than those provided by the Main Roads Department. In addition, the local authority is required by the Main Roads Act to maintain any developmental road situated in its district.

(ii) *Length and Surface of Roads.* (a) *General.* The total length of roads and streets in Western Australia at 30th June, 1961, was made up as follows:—bitumen or concrete, 9,148 miles; gravel or stone, 19,622 miles; formed only, 40,583 miles; cleared only, 23,375 miles; total, 92,728 miles.

(b) *Roads under Main Roads Act.* The total length of roads for which financial provision was made by the Main Roads Department at the 30th June, 1961, was:—Declared main roads, 3,471 miles including 5 miles of controlled-access roads; important secondary roads, 7,538 miles; and developmental roads, 22,099 miles.

(iii) *Main Roads Department.* (a) *General.* During the year 1960–61, the activities of the Department included clearing, 2,163 miles; forming, 2,486 miles; gravelling, 1,610 miles; reconditioning, 5,044 miles; and stabilizing, 403 miles. In addition, 1,474 miles were primed and sealed (including widening) and 29 bridges constructed.

(b) *Receipts and Payments.* The funds of the Main Roads Department are derived principally from allocations made under the Commonwealth Aid Roads Act 1959. Other sources of income include one-half of the net amount of traffic fees collected in the Metropolitan Traffic Area and an allocation of Transport Board funds. (Outside the Metropolitan Traffic Area, motor vehicle licence fees are collected and retained by the local authorities.) Receipts and payments for the years 1956–57 to 1960–61 are shown below.

**MAIN ROADS DEPARTMENT, WESTERN AUSTRALIA:
RECEIPTS AND PAYMENTS.**

(£.)

Item.	1956-57.	1957-58.	1958-59.	1959-60.	1960-61.
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RECEIPTS.

Motor Vehicle Registration, Licences, Fees, etc.	278,646	489,443	488,386	539,459	486,948
Central Trust Fund .. .. .	.. .. .	.. .. .	.. .. .	(a)351,604	(a)707,569
Commonwealth Aid Roads Acts	6,031,988	6,741,558	7,555,565	7,687,130	7,428,808
Commonwealth Aid Roads Acts—Matching Grants .. .. .	.. .. .	.. .. .	.. .. .	(a)351,591	(a)703,533
Recoups from Other Authorities	154,661	165,987	152,754	183,106	217,196
Other	103,522	14,355	5,254	4,777	3,179
Total	6,568,817	7,411,343	8,201,959	9,117,667	9,547,233

PAYMENTS.

Construction and Reconstruction of Roads and Bridges(b)	5,021,270	5,341,743	5,763,882	6,434,690	5,447,028
Maintenance of Roads and Bridges(b)	582,816	528,300	570,054	910,846	974,053
Grants to Local Authorities, etc.	916,283	936,622	1,078,395	1,182,255	1,263,722
Payments to Local Authorities from Central Road Trust Fund and Commonwealth Matching Grants .. .. .	.. .. .	.. .. .	.. .. .	.. .. .	403,799
Transfer to State Consolidated Revenue	70,000	70,000	70,000	70,000	70,000
Plant, Machinery, etc.	580,880	456,041	222,864	160,749	368,760
Other(b)	207,991	242,489	288,608	221,817	243,896
Total	7,379,240	7,575,195	7,993,803	8,980,357	8,771,258

(a) Includes amounts to be distributed to metropolitan and country local authorities early in the following year. (b) Includes administration and expenditure on hire and maintenance of road construction plant, etc., and on purchase of materials.

7. Tasmania.—(i) *General.* Under the Road Construction (Transfer of Functions) Act 1951, which came into operation on 1st July, 1951, the control of the construction and maintenance of roads and certain road making plant was vested in the Minister for Lands and Works. Works authorized by the Minister in respect of roads classified as State highways, tourist, and developmental roads are constructed by the Department of Public Works and financed from the State Highways Trust Fund, into which are paid the proceeds from Commonwealth Aid Roads grants, motor vehicle registration fees and taxes, licence fees for drivers and public transport, and other moneys made available by Parliament. In addition, provision was made under the Road Construction (Transfer of Functions) Act for certain works authorized by the Transport Commission to be carried out and constructed by the Department. The expenditure by the Public Works Department during 1959-60 on the construction of roads, tracks and bridges amounted to £4,517,000, of which £3,216,000 was charged to road funds, £38,000 to revenue, £1,242,000 to loan and £21,000 to other funds. Except in special cases, municipal councils bear the cost of maintaining country roads and a proportion of the cost of main and secondary roads.

(ii) *Length of Roads.* (a) *Classified Roads.* The mileages of classified roads in Tasmania at 30th June, 1961, were as follows:—State highways, 1,160 miles; main roads, 666 miles; secondary roads, 196 miles; tourist roads, 46 miles; developmental roads, 16 miles; other roads, 135 miles; total, 2,219 miles. Country roads totalled 9,496 miles. The mileages of sealed roads, and their proportions to the respective totals, were:—State highways, 691 miles (60 per cent.); main roads, 351 miles (53 per cent.); secondary and other roads, 48 miles (12 per cent.); total, 1,090 miles (49 per cent. of all classified roads, and 9 per cent. of all roads in Tasmania).

(b) *Surface of Roads.* The length of all roads in Tasmania, including those with surfaces of lower grade, at 30th June, 1961, was as follows:—bitumen or concrete, 1,879 miles; gravel or stone, 8,404 miles; formed only and cleared only, 1,432 miles; total, 11,715 miles.

(iii) *Receipts and Payments—Combined Road Funds.* The table below shows particulars of the receipts and payments of the combined Road Funds for the years 1956–57 to 1960–61.

ROAD FUNDS, TASMANIA: RECEIPTS AND PAYMENTS.

(£.)

Item.	1956–57.	1957–58.	1958–59.	1959–60.	1960–61.
RECEIPTS.					
Motor Vehicle Taxation and Registration, Licences, Fees, Fines, etc.	840,724	1,023,055	1,049,463	1,112,674	1,162,869
Commonwealth Aid Roads and Works Acts	1,535,719	1,745,888	1,948,491	2,183,461	2,299,992
Recoups from Local Authorities, etc.	10,469	9,192	9,641	9,384	8,555
State Loan Fund	679,099	600,083	705,630	1,168,558	2,461,289
Hire of Plant	912,089	1,076,810	1,181,032	1,273,535	1,393,102
Other	31,046	52,310	89,219	107,803	376,795
Total	4,009,146	4,507,338	4,983,476	5,855,415	7,702,602

PAYMENTS.

Construction and Reconstruction of Roads and Bridges	1,945,053	1,763,457	2,571,412	3,052,787	4,565,047
Maintenance	1,150,714	1,204,243	1,190,902	1,325,329	1,306,922
Other works connected with Transport	7,105	2,935	14,659	18,028	36,162
Grants to Local Authorities, etc. ..	7,346	12,755	9,657	9,195	14,265
Purchase, Hire and Maintenance of Plant	1,068,202	1,080,554	1,232,912	1,388,877	1,528,885
Other	93,717	92,885	61,427	313,189	365,194
Total	4,272,137	4,156,829	5,080,969	6,107,405	7,816,475

8. *Territories.*—Information relating to the construction of roads and length and composition of roads in the Northern Territory and the Australian Capital Territory may be found in Chapter V.—Territories, of this Year Book (*see pp. 113 and 118*).

9. *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, 1961. The central road authority in each State assumes responsibility under the Act for the whole, or a proportion, of the cost of construction and/or maintenance of these roads, 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, therefore, the condition of a road may not match its status.

PROCLAIMED OR DECLARED ROADS: LENGTHS, 30th JUNE, 1961.

(Miles.)

Class of Road.	N.S.W.	Vic.	Q'land. (a)	S. Aust.	W. Aust.	Tas.	Total.
State highways	6,497	4,502	8,252	} 8,188	3,471	} 1,160	} 68,120
Trunk roads	4,162	} 9,111	10,460				
Ordinary main roads	11,651						
Total Main Roads	22,310	13,613	18,712	8,188	3,471	1,826	68,120
Secondary roads	(b) 92	..	(c) 1,800	..	(d) 7,538	196	9,626
Developmental roads	2,962	..	230	..	22,099	16	25,307
Tourist roads .. .. .	..	426	..	..	..	46	472
Other roads .. .. .	..	(e) 473	..	..	..	(f) 135	608
Total Other Roads	3,054	899	2,030	..	29,637	393	36,013
Grand Total	25,364	14,512	20,742	8,188	33,108	2,219	104,133

(a) As at 30th June, 1960. (b) Metropolitan only. (c) Includes mining access roads, farmers' roads and tourist tracks. (d) Though financed by the Main Roads Department, these roads are under the control of local authorities. (e) Forest roads and by-pass roads. (f) Subsidized roads.

(ii) *Surface 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 surface groups. The figures in the table for the States are obtained from the Deputy Commonwealth Statistician in each State, and are derived mainly from local government sources.

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

ALL ROADS USED FOR GENERAL TRAFFIC: LENGTHS.

(Miles.)

Surface of Roads.	N.S.W. 30th June, 1960.	Vic. 30th Sept., 1960.	Q'land. 30th June, 1961.	S. Aust. 30th June, 1961.	W. Aust. 30th June, 1961.	Tas. 30th June, 1961.	N. Terr. 30th June, 1961.	A.C.T. 30th June, 1961.	Total.
Bitumen or concrete	18,476	19,426	10,141	5,333	9,148	1,879	1,386	324	66,113
Gravel, crushed stone or other improved surface	46,775	32,392	20,515	13,586	19,622	8,404	207	143	141,644
Formed only	26,966	23,443	40,768	15,326	40,583	} 1,432	} 1,698	} 125	} 324,559
Cleared only	37,535	26,190	49,072	28,293	23,375				
Total	129,752	101,451	120,496	62,538	92,728	11,715	12,942	594	532,216

10. *Aggregate Net Expenditure on Roads and Bridges in Australia.*—In most States there are three classes of authorities concerned with roads and bridges, the State Government, the central road authority and numerous local government bodies. The Commonwealth Government, in addition to the grants it makes to the States for road purposes, is also concerned with roads in the Northern Territory and the Australian Capital Territory and roads of access to Commonwealth property in the various States. Some information relating to Commonwealth grants to the States for road purposes and particulars of the expenditure on roads and bridges by local government bodies and the central road authorities are given in preceding sections of this chapter.

Most of these authorities may expend money directly on road construction or indirectly by means of grants and payments to other authorities. These indirect payments, which, if included, would duplicate expenditure, together with the fact that some authorities are unable to supply separate information concerning their road expenditure, make it difficult to compile precise statistics of aggregate expenditure on roads and bridges.

The information in the following table, which is partly estimated and which excludes the main indirect payments, provides an approximate measure of the aggregate net expenditure by all public authorities on roads and bridges in Australia during each of the years ended 30th June, 1957 to 1961. The figures cover expenditure from revenue and loan funds on the construction, reconstruction and maintenance of roads and bridges, and direct administration but not debt charges. Because of the difficulties associated with the indirect payments mentioned above, it is not possible to give separate net details for each authority.

PUBLIC AUTHORITY NET EXPENDITURE ON ROADS AND BRIDGES.
(£ million.)

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Northern Territory and A.C.T.	Aust.
1957 ..	36	22	16	10	8	4	1	97
1958 ..	39	28	18	10	9	4	1	109
1959 ..	42	29	17	11	9	5	2	115
1960 ..	42	34	23	12	11	6	2	130
1961 ..	50	37	24	13	10	8	2	144

§ 5. Water Supply, Sewerage and Drainage.

NOTE.—See also Chapter VIII.—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 Shellharbour, and (b) the Hunter District Water Board serving the Newcastle-Maitland-Cessnock areas. 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 or shire councils.

(ii) *Water Supply—to 30th June, 1961.* (a) *Metropolitan.* The storage reservoirs of the metropolitan system, with a combined available capacity of 577.122 million gallons, drain catchment areas of 3,788 square miles (Warragamba, 3,412 square miles, Upper Nepean, 347 square miles, and Woronora, 29 square miles). The development of a water supply system on the Warragamba River was completed with the official opening of the Warragamba Dam in October, 1960. This dam, constructed in concrete, has a storage capacity of 452,505 million gallons. Its safe net draught is estimated to be 285 million gallons a day. A hydro-electric power station at the dam generates 50,000 kWh a day. At 30th June, 1961, there were 135 service reservoirs in use with a combined capacity of 590 million gallons. Rating for water for 1960-61 was 9½d. in the £1 of assessed annual value and the charge for water measured by meters 2s. 6d. per 1,000 gallons.

(b) *Hunter District.* 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 113 million gallons. Water rating for 1960-61 was 1s. 5½d. in the £1 on assessed annual value for occupied properties and 1s. 2½d. in the £1 for unoccupied properties. The price of water to domestic and industrial consumers is 2s. 6d. per 1,000 gallons.

(c) *Water Supplied, etc.* The following tables show, for the Metropolitan and Hunter District systems, the number of properties, the estimated population supplied, and other details for the years 1956-57 to 1960-61.

WATER SUPPLY, METROPOLITAN(a): SERVICES.

Year.	Improved Properties for which Water Mains 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.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	
1956-57 ..	545,992	2,096,000	196.0	71,530	364	94.1	5,904	326,173
1957-58 ..	561,934	2,148,000	183.6	67,016	331	86.1	6,055	340,364
1958-59 ..	579,900	2,212,000	198.9	72,624	348	91.3	6,246	362,130
1959-60 ..	598,893	2,264,000	200.9	73,329	335	88.7	6,450	382,180
1960-61 ..	620,944	2,341,000	219.1	79,988	353	93.6	6,664	411,731

(a) County of Cumberland, City of Greater Wollongong and Shellharbour Municipality.

WATER SUPPLY, HUNTER DISTRICT(a): SERVICES.

Year.	Properties Supplied.	Estimated Population Supplied.	Average Daily Consumption.	Total Consumption for Year.	Average Daily Consumption.		Length of Mains.
					Per Property.	Per Head of Estimated Population.	
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.
1956-57.. ..	77,380	309,520	29.5	10,768	381	95.3	1,369
1957-58.. ..	78,954	315,816	29.5	10,753	373	93.3	1,410
1958-59.. ..	81,398	325,592	28.2	10,281	346	86.5	1,439
1959-60.. ..	84,497	337,988	28.6	10,474	339	84.7	1,460
1960-61.. ..	86,032	344,128	29.7	10,854	346	86.4	1,483

(a) Newcastle, Maitland and Cessnock areas.

(iii) *Sewerage and Drainage—*to 30th June, 1961. (a) *Metropolitan.* Sydney and suburbs are served by three major sewerage systems and seven minor systems, consisting of six outfalls discharging directly into the Pacific Ocean, and four treatment works. In addition, five centres outside the metropolitan area (Camden, Campbelltown, St. Mary's, Port Kembla and Wollongong) are served by local treatment works.

Stormwater drainage channels under the control of the Metropolitan Water, Sewerage and Drainage Board at 30th June, 1961, were 180 miles long. Sewerage rating for 1960-61 was 9d. in the £1 of assessed annual value, and drainage rating 1½d. in the £1.

(b) *Hunter District.* The main sewerage system serves the City of Newcastle and discharges into the Pacific Ocean at Merewether Gulf. There are also local treatment works at Maitland, Cessnock and some of the outlying districts.

Sewerage rates for 1960-61 were 1s. 0½d. in the £1 of assessed annual value of occupied lands and 9½d. in the £1 for unoccupied lands, and drainage rates (on certain areas served) 1½d. in the £1.

(c) *Particulars of Services.* The following table gives, for the Metropolitan system, details of sewerage services and stormwater drains as at 30th June, 1957 to 1961.

SEWERAGE AND DRAINAGE, METROPOLITAN(a): SERVICES.

At 30th June—				Improved Properties for which Sewerage Available.	Estimated Population Served.	Lengths of Sewers.	Length of Stormwater Channels.
						Miles.	Miles.
1957..	..	..	..	353,800	1,457,000	3,462	175
1958..	..	..	..	364,712	1,483,000	3,628	180
1959..	..	..	..	379,069	1,520,000	3,791	180
1960..	..	..	..	395,869	1,560,000	4,021	180
1961..	..	..	..	412,034	1,620,000	4,231	180

(a) County of Cumberland, City of Greater Wollongong and Shellharbour Municipality.

At 30th June, 1961, 58,631 premises had been connected to the Hunter District Water Board's sewerage system (Newcastle-Maitland-Cessnock areas). The total length of sewers under the Board's control was 805 miles, and the length of drains was 50 miles.

(iv) *Finances, Metropolitan and Hunter District 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 1960-61, and for the three services combined during the years 1956-57 to 1959-60.

WATER SUPPLY, SEWERAGE AND DRAINAGE, METROPOLITAN AND HUNTER DISTRICT: FINANCES.

(£.)

Year.	Capital Debt at 30th June.	Revenue.	Expenditure.				Surplus (+) or Deficit (-).
			Working Expenses. (a)	Interest and Exchange.	Debt Redemption.	Total.	
METROPOLITAN.(b)							
1960-61—							
Water ..	108,891,960	10,817,327	4,315,800	4,674,367	1,821,336	10,811,503	+ 5,824
Sewerage ..	44,815,510	6,053,475	3,481,413	1,843,714	727,118	6,052,245	+ 1,230
Drainage ..	1,414,758 ¹	376,598	296,957	54,874	19,866	371,697	+ 4,901
Total 1960-61	155,122,228	17,247,400	8,094,170	6,572,955	2,568,320	17,235,445	+ 11,955
1959-60	140,992,864	15,662,131	7,739,582	5,721,738	2,194,286	15,655,606	+ 6,525
1958-59	127,090,931	14,243,408	7,219,250	5,107,248	1,904,612	14,231,110	+ 12,298
1957-58	116,624,719	13,071,578	6,841,455	4,534,653	1,680,320	13,056,428	+ 15,150
1956-57	105,627,704	11,299,363	5,853,765	3,899,087	1,540,412	11,293,264	+ 6,099
HUNTER DISTRICT.(c)							
1960-61—							
Water ..	19,379,458	1,643,692	817,888	638,169	184,997	1,641,054	+ 2,638
Sewerage ..	5,708,538	683,774	415,657	217,997	49,320	682,974	+ 800
Drainage ..	248,788	51,394	32,378	10,580	2,115	45,073	+ 6,321
Total 1960-61	25,336,784	2,378,860	1,265,923	866,746	236,432	2,369,101	+ 9,759
1959-60	22,638,498	2,287,793	1,197,373	738,436	343,128	2,278,937	+ 8,856
1958-59	20,053,737	2,133,500	1,179,652	671,151	246,480	2,097,283	+ 36,217
1957-58	16,999,335	1,961,696	1,138,593	599,457	217,907	1,955,957	+ 5,739
1956-57	14,602,234	1,709,861	989,870	521,212	194,718	1,705,800	+ 4,061

(a) Includes provision for renewals, long service leave, loss on exchange, etc. (b) County of Cumberland, City of Greater Wollongong, Shellharbour Municipality. (c) Newcastle-Maitland Cessnock areas.

(v) *Country Water Supply and Sewerage Systems. (a) Local Government.* At 31st December, 1959, country water supply services were conducted or under construction by 54 municipalities, 78 shires and 5 county councils, and country sewerage services by 53 municipalities and 28 shires. The capital indebtedness of these schemes was £26,856,626 at 31st December, 1959, namely, £18,198,539 for water and £8,658,087 for sewerage. Debt of the municipalities amounted to £15,307,765, shires to £7,451,804 and county councils to £4,097,057. Government advances amounting to £488,638 are included in these figures. Aggregate income and expenditure amounted to £4,561,902 and £3,513,229, respectively, in 1959.

(b) *Other.* 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, 1960, was £3,237,326. In 1960, income (excluding subsidies, State Government £102,604 and Mining Companies £301,978) amounted to £271,222 and expenditure (excluding debt redemption £213,195) amounted to £461,824.

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 direct to private consumers. The capital indebtedness of these systems was £6,011,169 at 31st December, 1960.

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

2. *Victoria.—(i) Melbourne and Metropolitan Board of Works. (a) General.* The Board was established by Act of Parliament on 20th December, 1890. Since June, 1959, the Board has consisted of a Chairman and 51 Commissioners elected to represent the municipalities which lie wholly or partly within the metropolitan area. The Chairman is elected by the Commissioners for a four-year term. The principal functions of the Board until 1954 were to control and manage the metropolitan water supply system; to provide the metropolitan area with an efficient main and general sewerage system; to deal with main drains and main drainage works; and to control and manage the rivers, creeks and watercourses within the metropolitan area. The Board has carried out since December, 1954, the additional functions of a permanent planning authority, and in June, 1956, it became the authority directly responsible for certain metropolitan main highways, bridges, parks and foreshores.

(b) *Water Supply.* There are six storage reservoirs serving the metropolitan area—Yan Yean, 7,233 million gallons (available for consumption, 6,649 million gallons); Toorourong, 60 million gallons; Maroondah, 6,289 million gallons (4,870 million gallons); O'Shannassy, 930 million gallons; Silvan, 8,853 million gallons (8,823 million gallons); and Upper Yarra, 45,400 million gallons (44,120 million gallons); total 68,765 million gallons (65,452 million gallons). Service reservoirs number 37, with a total capacity of 370 million gallons.

The water rate levied by the Board in 1959–60 was 8d. in the £1 on the net annual value of the properties served. The charge for water consumed in excess of the quantity which, at 1s. 6d. per 1,000 gallons, would equal the assessed water rates on each property, was 1s. 6d. per 1,000 gallons. The following table shows particulars of Melbourne metropolitan water supply services for the years 1956–57 to 1960–61.

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 Aque-ducts, etc., Mains and Reticulation.	Number of Meters.
					Per House.	Per Head of Estimated Population.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	
1956-57 ..	440,159	1,585,000	119.6	43,652	271	75.4	4.478	299,676
1957-58 ..	454,853	1,637,000	128.8	47,006	283	78.7	4.721	317,670
1958-59 ..	483,410	1,740,000	134.0	48,917	277	77.0	4.942	344,702
1959-60 ..	496,841	1,789,000	145.3	53,169	292	81.2	5.109	366,905
1960-61 ..	510,078	1,836,000	152.9	55,822	300	83.3	5,245	392,396

(c) *Sewerage and Drainage.* Particulars of sewerage and drainage services for 1956-57 to 1960-61 are shown below. The rate levied in 1960-61 in respect of sewerage was 1s. 2d. in the £1 on the net annual value of the property served. The drainage rate was 2d. 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.
1956-57 ..	366,507	1,319,000	74.5	27,181	203.2	56.5	3.180	161
1957-58 ..	373,019	1,343,000	75.0	27,379	201.1	55.8	3.256	169
1958-59 ..	378,738	1,363,000	78.7	28,716	207.8	57.7	3.350	176
1959-60 ..	384,844	1,385,000	83.2	30,459	216.2	60.1	3.458	181
1960-61 ..	395,109	1,422,000	88.1	32,159	223.0	62.0	3,550	193

The metropolitan sewerage system consists of the main system (serving an area of 80,823 acres) and four subsidiary systems—the Sunshine system (serving an area of 2,033 acres), the Laverton system (serving an area of 108 acres), the Kew system (serving an area of 112 acres) and the South-eastern system (serving an area of 2,815 acres in Cheltenham, Parkdale, Mentone and Mordialloc). The Metropolitan Sewage Farm, 26,811 acres in extent and situated about 24 miles south-west of Melbourne beyond the township of Werribee, serves to purify and dispose of approximately 98 per cent. of the sewage flow of the metropolis before its discharge into Port Philip Bay. The total capital cost (less depreciation) of the Farm to 30th June, 1961, was £3,994,914. Revenue during 1960-61 amounted to £224,589, cost of sewage disposal to £239,176, trading expenses to £123,955, interest to £197,863, and net cost of sewerage purification to £336,405. These financial particulars are included in the sewerage items of the summary below.

(d) *Finances.* The following table provides for the year 1960-61 a summary of the financial operations of the water supply, sewerage and drainage services conducted by the Melbourne and Metropolitan Board of Works.

MELBOURNE AND METROPOLITAN BOARD OF WORKS: FINANCES, 1960-61.

(£.)

Service, etc.	Capital Cost of Works and Buildings at 30th June.(a)	Revenue.	Expenditure.				Surplus(+) or Deficit(-).
			Working Expenses.	Interest and Exchange.	Debt Redemption.	Total.	
Water ..	51,937,868	4,106,083	1,544,299	2,494,236	..	4,038,535	+ 67,548
Sewerage ..	41,410,482	4,379,165	1,513,390	1,898,154	..	3,411,544	+ 967,621
Drainage ..	8,911,526	672,492	431,217	332,418	..	763,635	+ 91,143
General(b) ..	4,408,069	..	532,602	..	530,679	1,063,281	- 1,063,281
Total ..	106,667,945	9,157,740	4,021,508	4,724,808	530,679	9,276,995	- 119,255

(a) Total loan indebtedness—1960-61, £94,799,845.

(b) Statutory and general expenditure not distributed over Services.

The following table shows the financial operations of the water supply, sewerage and drainage services of the Melbourne and Metropolitan Board of Works for the years 1956-57 to 1960-61.

MELBOURNE AND METROPOLITAN BOARD OF WORKS: FINANCES.

(£.)

Year.	Capital Cost of Works and Buildings at 30th June.	Revenue.	Expenditure.				Surplus(+) or Deficit(-).
			Working Expenses.	Interest and Exchange.	Debt Redemption.	Total.	
1956-57 ..	72,071,790	6,241,514	3,224,087	2,851,191	149,139	6,224,417	+ 17,097
1957-58 ..	79,439,722	6,962,750	3,485,745	3,287,070	170,507	6,943,322	+ 19,428
1958-59 ..	88,466,516	7,564,879	3,471,915	3,681,159	402,969	7,556,043	+ 8,836
1959-60 ..	98,098,322	8,463,843	3,845,137	4,221,253	526,802	8,593,192	- 129,349
1960-61 ..	106,667,945	9,157,740	4,021,508	4,724,808	530,679	9,276,995	- 119,255

(ii) *State Rivers and Water Supply Commission.* (a) *General.* Water supply and conservation throughout Victoria (except for the area controlled by the Melbourne and Metropolitan Board of Works) is the responsibility of the State Rivers and Water Supply Commission. The events leading to the establishment of the Commission and its works in the spheres of irrigation, domestic and stock water supply to farms, drainage, flood protection and river improvement, have already been described in Chapter VIII.; this section is therefore confined to the Commission's functions in connexion with urban water supply and sewerage.

(b) *Water Supply.* At 30th June, 1961, the Commission provided a reticulated water supply from its own works to 131 cities and towns having a combined population of 200,000 persons.

The principal systems operated by the Commission serve part of the Mornington Peninsula—Dandenong area (about 85,000 people supplied); Bendigo, Castlemaine, etc. (58,000); and about 8,000 people in the Western District. In addition, 10,000 persons in a number of towns in the Bellarine Peninsula receive supply through a Commission-operated distributary system from headworks controlled by the Geelong Waterworks and Sewerage Trust.

Outside these areas, the Commission supplies mainly small towns in the north of the State, in areas where it also supplies farms with water for irrigation or domestic and stock purposes.

Capital expenditure at 30th June, 1961, net of redemption payments, was divided up as follows between the several systems:—Mornington Peninsula, £7,650,000; Bendigo, Castlemaine, £3,950,000; Bellarine Peninsula, £825,000; Otway System (Western District), £700,000; Other, £1,025,000; Total, £14,150,000.

In addition to the towns supplied by the Commission, there are approximately 550,000 people in 187 cities and towns throughout the State who get a reticulated water supply from works operated by local authorities.

All these authorities operate under the supervision of the State Rivers and Water Supply Commission, largely because the Government subsidizes their capital expenditure. Most new works are financed from Government loan funds, but in recent years some local authorities have been able to borrow money privately. In most cases, the local authority controls both headworks and distribution system, but a few large towns—serving about 50,000 people—draw their water from the State Rivers and Water Supply Commission and are concerned only with reticulation of the water. Together, therefore, the Commission and local authorities supply 318 urban centres containing about 750,000 people. Very few towns of any importance are now without a reticulated water supply.

The following table presents the financial position in respect of town water supply at 30th June, 1961.

TOWN WATER SUPPLY, VICTORIA: CAPITAL LIABILITY, 30TH JUNE, 1961.
(£'000.)

Particulars.	Water supply provided by—		
	Local Authorities.	State Rivers and Water Supply Commission.	Total.
Government advances	18,100	14,825	32,925
Private loans	1,500	..	1,500
<i>Total Expenditure</i>	<i>19,600</i>	<i>14,825</i>	<i>34,425</i>
Redemption and repayments	1,400	675	2,075
<i>Loan Expenditure Outstanding</i>	<i>18,200</i>	<i>14,150</i>	<i>32,350</i>
Borne by State	4,000	6,950	10,950
Borne locally	14,200	7,200	21,400

The proportion of loan capital borne by the State is much higher in the case of Commission undertakings than for towns supplied by local authorities. This is because most Commission undertakings have been developmental in nature. Besides interest on capital borne by it, the State pays the difference between 3 per cent. and the actual rate paid on practically all of the capital carried locally. The total annual subsidy on country town water supply is currently about £750,000.

(c) *Sewerage.* With the exception of the town of Eildon whose sewerage system is controlled directly by the State Rivers and Water Supply Commission, the construction and management of sewerage works in Victoria's country cities and towns are the responsibility of local authorities supervised by the Commission. Except for the Geelong Waterworks and Sewerage Trust and the Latrobe Valley Water and Sewerage Board which have special Acts dealing with their activities, all sewerage authorities operate under the Sewerage Districts Act.

At 30th June, 1961, there were 39 cities and towns with sewerage systems in operation. These contained about 400,000 persons, approximately a third of the total number of residents outside the metropolitan area.

Expenditure on sewerage in Victorian country towns at 30th June, 1961, was a little over £15,500,000, of which approximately £12,000,000 had been advanced by private lenders. The annual State subsidy on country sewerage in Victoria is currently about £200,000, mainly provided in the form of subsidies on interest rates paid, along the same lines as for town water supply. Comparatively little capital is borne directly by the State.

(iii) *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. The amount of loan money which may be raised is limited to £6,500,000 for water supply undertakings, and £5,000,000 for sewerage undertakings. The population supplied is estimated by the Trust at 98,650 persons. This and other general information relates to 30th June, 1961.

(b) *Water Supply.* The Trust operates two systems for gathering and storing water, one on the Moorabool River with works extending beyond Ballan to Spargo Creek and the other on the Barwon River with works extending to Forrest. In both systems, water is brought over fifty miles to Geelong. There are seven storage reservoirs and eleven service basins whose total storage capacity is 8,640 million gallons. The length of water mains and reticulation is 501 miles. The total expenditure on water supply to 30th June, 1961, was £4,293,190. General fund expenditure for 1960-61 comprised £145,559 for working expenses and £273,429 for interest, redemption and reserves, while revenue amounted to £423,446. The sinking fund appropriations at June, 1961, amounted to £337,008. The replacement and contingencies reserve amounted to £291,802. There is a water rate of 1s. 7d. in the £1 (with minima of 10s. for vacant 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 234.7 miles of main and reticulation sewers. The sewerage area is 10,559 acres, and the number of buildings connected within the sewered areas is 20,606. The total expenditure on sewerage works to 30th June, 1961, was £1,988,368. The revenue in 1960-61 amounted to £206,251 and the general fund expenditure comprised £84,514 on working expenses and £119,868 on interest, redemption and reserves. Sinking fund appropriations at June, 1961, were £178,632. Replacement and contingencies reserve amounted to £337,266. A general rate of 1s. 4d. in the £1 is levied on the net annual value of ratable properties.

(iv) *The Ballarat Water Commissioners and the Ballarat Sewerage Authority.* (a) *General.* The body known as the Ballarat Water Commissioners was constituted on 1st July, 1880, and the Ballarat Sewerage Authority on 30th November, 1920. The members of the Water Commissioners constitute the Sewerage Authority. The Commissioners number nine, three (one of whom is chairman) being appointed by the Government, four being elected by the Council of the City of Ballarat, one being elected by the Councils of the Borough of Sebastopol and the Shires of Buninyong and Grenville and one being elected by the Councils of the Shires of Bungaree and Ballarat. General and financial information given herein relates to the year ended 31st December, 1961.

(b) *Water Supply.* The water supply district embraces an area of about 65 square miles, containing a population of about 58,000. The total storage capacity of the seven reservoirs is 5,606 million gallons and the catchment area is 24,182 acres.

The capital cost of construction of the waterworks was £2,641,780 to 31st December, 1961. The liabilities amounted to £1,577,031 at 31st December, 1961, including loans due to the Government totalling £1,442,738. The revenue for the year 1961 was £173,925. Working expenses during 1961 amounted to £96,010 and interest and other charges to £77,752. A water rate of 1s. 1d. in the £1 on the net annual valuation is levied, with a minimum charge of £1 10s. per annum on any ratable property.

(c) *Sewerage.* The Ballarat sewerage district embraces the City of Ballarat and parts of the Shires of Ballarat, Bungaree and Grenville and the Borough of Sebastopol. Work was commenced in 1922 and up to 31st December, 1961, the Authority had constructed two disposal works, a nightsoil depot, an ejector station and more than 161 miles of sewers. The capital cost of sewerage construction works to 31st December, 1961, was £1,525,611. The method of sewage disposal is by sedimentation, oxidation and sludge digestion. Two hundred and six sewered areas had been declared as at 31st December, 1961. Assessments in the sewerage district numbered 17,982, while those in sewered areas numbered 14,454. There were 12,483 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, 1961, amounted to £1,261,787; redemption payments at that date totalled £314,787. An expenditure of £157,122 was incurred for house connexions, the whole of which has been redeemed. Revenue during 1961 amounted to £132,910, and expenditure, which included £61,589 on interest and redemption, was £126,808.

A sewerage rate of 1s. 4d. in the £1 on the net annual valuation is levied, with a minimum charge of £3 on any ratable property.

(v) *Latrobe Valley Water and Sewerage Board.* (a) *General.* The Latrobe Valley Water and Sewerage Board was constituted on 1st July, 1954. The Board consists of seven members, namely:—two Government nominees (one of whom is Manager and also Board Chairman), three members elected by water supply, sewerage and river improvement authorities within the Latrobe Valley, and one representative each of the State Electricity Commission of Victoria and the Gas and Fuel Corporation of Victoria.

(b) *Water Supply.* The Board is empowered to construct water supply works within the Latrobe Valley, but at present its main construction activities are confined to the central industrialized areas, particularly around the towns of Morwell and Traralgon. At 30th June, 1961, a pumped water supply scheme from the Tyers River had been constructed and work was proceeding on a reservoir with a capacity of 7,000 million gallons on the Upper Tyers River and a 60-inch diameter pipeline connecting that reservoir to the existing distribution mains. The capital cost of construction of the water works was £3,642,439 to 30th June, 1961. Liabilities amounted to £4,020,129 including loans due to the Government totalling £3,915,059. Revenue for the year was £128,121. Working expenses during 1960-61 amounted to £57,135 and interest and other charges to £50,811. The Board does not strike a rate but supplies consumers, including local water supply authorities, by measure. The quantity supplied during the year ended 30th June, 1961, was 3,076 million gallons.

(c) *Sewerage.* The sewerage system consists of a main outfall sewer, about 50 miles in length, to the Dutson Downs Disposal Farm. Wastes conveyed consist mainly of industrial wastes, such as paper wastes and gasification wastes, together with small quantities of domestic sewage. The capital cost of the sewerage construction works to 30th June, 1961, was £2,342,921. Liabilities amounted to £2,651,626 including loans due to the Government totalling £2,482,557. Revenue in 1960-61 was £109,693, and expenditure comprised £53,178 working expenses and £69,355 interest and other charges. No sewerage rate is levied but a charge is made by measure for wastes both from industries and public authorities. The quantities of effluent admitted to the outfall system during 1960-61 averaged 4.73 million gallons a day.

(vi) *Other Sewerage Authorities.* At 30th June, 1961, 64 other sewerage authorities had been constituted under the provisions of the Sewerage Districts Acts and systems were in operation in 36 districts.

3. *Queensland.*—(i) *Brisbane City Council—to 30th June, 1961.* (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 major portion of that used by the City of Redcliffe. Since September, 1960, Redcliffe has supplemented its supply from that of the Pine Rivers Shire Council.

(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 (5,720 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 16 service reservoirs with a capacity of approximately 41 million gallons. The Somerset reservoir 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, 1961, was 4½d. in the £1 of unimproved capital value for improved properties, and 3½d. in the £1 for vacant lands, with a minimum charge of £7 and £6 10s. respectively. The following table is a summary of operations of the complete Brisbane City Council system (Brisbane, Ipswich and Redcliffe) for the years 1956-57 to 1960-61.

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 Reticulation Mains.	Number of Meters.
					Per Service.	Per Head of Estimated Population.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	
1956-57 ..	153,035	560,000	41.1	15,012	269	73.5	1,959	(b)
1957-58 ..	157,750	575,212	41.0	14,970	260	71.3	1,995	(b)
1958-59 ..	163,336	594,124	41.4	15,127	254	69.7	2,059	(b)
1959-60 ..	168,687	615,293	44.3	16,214	272	73.1	2,137	(b)
1960-61 ..	171,820	626,470	46.8	17,100	273	74.8	2,196	(b)

(a) Includes Ipswich and Redcliffe.

(b) Not available.

(c) *Sewerage.* The sewage treatment works is situated at **Luggage Point** at the entrance to the Brisbane River. An activated sludge system of treatment was originally planned but since the commencement of pumping operations a sedimentation plant only has been used. Sewerage rating at 30th June, 1961, was 3½d. in the £1 of unimproved capital value for improved properties, and 2½d. in the £1 for vacant lands, with a minimum charge of £7 10s. and £7 respectively. The following table is a summary of operations of the Brisbane sewerage scheme for the years 1956-57 to 1960-61.

SEWERAGE, BRISBANE: SERVICES.

Year.	Premises Connected.	Estimated Population Served.	Total Sewage Pumped for the Year.	Length of Main, Branch, Reticulation etc., Sewers.
			Mill. Galls.	Miles.
1956-57	54,300	201,000	4,837	712
1957-58	55,846	206,630	5,316	731
1958-59	58,616	216,879	6,043	757
1959-60	58,942	218,185	5,626	803
1960-61	62,781	232,290	5,222	853

(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 1956-57 to 1960-61.

WATER SUPPLY AND SEWERAGE, BRISBANE: FINANCES.

(£.)

Service and Year.	Gross Capital Cost to 30th June.	Revenue.	Expenditure.			Surplus(+) or Deficit(-).
			Working Expenses.	Interest, Redemption, etc., Charges.	Total. (a)	
Water Supply—						
1956-57 ..	13,159,492	1,634,624	810,150	564,708	1,610,117	+ 24,507
1957-58 ..	13,560,777	1,728,751	875,248	569,267	1,577,222	+ 151,529
1958-59 ..	14,688,559	1,786,978	907,186	629,422	1,736,230	+ 50,748
1959-60 ..	16,369,241	2,149,216	984,213	793,263	2,115,298	+ 33,918
1960-61 ..	18,437,170	2,315,102	1,044,524	879,712	2,308,682	+ 6,420
Sewerage—						
1956-57 ..	13,475,340	757,507	245,035	414,315	744,755	+ 12,752
1957-58 ..	13,874,524	773,337	244,774	421,004	761,118	+ 12,219
1958-59 ..	14,434,390	807,399	254,445	444,562	806,862	+ 537
1959-60 ..	15,556,266	907,148	252,211	460,896	839,761	+ 67,387
1960-61 ..	16,837,552	982,345	282,035	489,597	964,578	+ 17,767

(a) Total, including other expenditure.

(ii) *Country Towns.* (a) *Water Supply.* In addition to the City of Brisbane, there were, at 30th June, 1960, 153 cities and towns in Queensland provided with water supply systems controlled by municipal and shire councils.

(b) *Sewerage Systems.* At 30th June, 1960, there were 23 cities and towns in addition to Brisbane with sewerage systems. These were—Barcaldine, Blackall, Bundaberg, Charleville, Cunnamulla, Goondiwindi, Hughenden, Ipswich, Kingaroy, Longreach, Mackay, Maryborough, Monte, Mt. Isa, Quilpie, Rockhampton, Redcliffe, Roma, Surat, Toowoomba, Townsville, Warwick and Winton.

Sewerage schemes were in course of construction at Bowen, Cairns, Gordonvale, Richmond and St. George.

(c) *Finances.* The receipts (other than loan and loan subsidy) of water undertakings controlled by the cities and towns referred to above amounted to £2,171,282 in 1959–60. Expenditure amounted to £2,171,734, including £943,924 for debt charges. In addition, expenditure from loans and loan subsidy amounted to £2,449,506.

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 mainly and are maintained by the Engineering and Water Supply Department, under the control of the Minister of Works. Works controlled by the Department are the Adelaide, Barossa, Beetaloo, Bundaleer, Moorook, Tod River, Warren, Yorke Peninsula and other country water districts systems, the Morgan–Whyalla water supply system, the Adelaide metropolitan sewerage system, the Metropolitan Flood Waters Scheme, works on the River Murray constructed under the River Murray Waters Agreement, and sewerage schemes at Naracoorte and Port Lincoln. The Salisbury–Elizabeth Sewerage Scheme was incorporated in the Metropolitan system during 1960–61. Several water supply schemes on the Murray River are operated by the Department of Lands in conjunction with its irrigation works, and supplies to Woomera and Leigh Creek coalfield are controlled by the operating authorities.

(ii) *South Australian Waterworks.* (a) *Services.* The table below shows particulars of the area, capacity, etc., of combined metropolitan and country waterworks for the years 1956–57 to 1960–61.

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.	
1956–57..	250,306	22,687,480	12,860,508	24,015	7,916	166,350
1957–58..	262,430	26,810,750	12,983,539	33,949	8,260	180,815
1958–59..	269,825	28,361,294	13,003,305	33,954	8,537	197,914
1959–60..	289,235	31,617,930	13,037,312	33,957	9,016	213,024
1960–61..	319,108	40,593,447	13,118,635	35,405	9,292	232,072

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

(b) *Finances.* Figures for 1956–57 to 1960–61 are shown in the following table.

WATERWORKS, SOUTH AUSTRALIA: FINANCES.

(£.)

Year.	Invested Capital to 30th June.	Revenue.	Expenditure.			Deficit.
			Working Expenses. (a)	Interest.	Total.	
1956–57	45,239,197	2,318,072	2,295,444	1,485,486	3,780,930	1,462,858
1957–58	49,161,026	3,028,193	2,944,648	1,740,157	4,684,805	1,656,612
1958–59	54,301,234	3,106,348	2,768,406	1,933,850	4,702,256	1,595,908
1959–60	59,636,914	3,386,221	3,391,892	2,205,764	5,597,656	2,211,435
1960–61	65,183,386	4,284,394	3,188,385	2,373,567	5,561,952	1,277,558

(a) Includes debt redemption.

(iii) *Adelaide Waterworks.* At 30th June, 1961, the Adelaide waterworks supplied a district of 191,434 acres. The capacity of its five reservoirs and storage tanks was 14,500 million gallons and there were 2,403 miles of mains. Water is also drawn from the 11,300 million gallon reservoir at South Para in the Barossa Water District and additional storage capacity is becoming available at the new Myponga Reservoir (5,994 million gallons) and at Mt. Bold Reservoir, where raising the dam is adding 5,000 million gallons capacity.

The Mannum-Adelaide pipeline conveys water from the River Murray to Adelaide at a rate of 53 (currently being raised to 65) million gallons per day. Water is delivered to the River Torrens or, by further pumping, to the River Onkaparinga. With further development, the main will operate as a closed system connected to the metropolitan reticulation. The pipeline supplements the Warren system and other country areas.

Particulars of finances for the years 1956-57 to 1960-61 are shown below.

ADELAIDE WATERWORKS: FINANCES.

(£.)

Year.	Invested Capital to 30th June.	Revenue.	Expenditure.			Surplus (+) or Deficit (-).
			Working Expenses. (a)	Interest.	Total.	
1956-57.. ..	23,115,689	1,492,610	1,218,285	759,012	1,977,297	- 484,687
1957-58.. ..	25,900,153	2,045,625	1,612,284	915,721	2,528,005	- 482,380
1958-59.. ..	28,719,570	2,101,768	1,437,861	1,032,464	2,470,325	- 368,557
1959-60.. ..	32,074,743	2,311,402	1,919,538	1,136,373	3,055,911	- 744,509
1960-61.. ..	35,078,981	2,958,675	1,731,561	1,218,096	2,949,657	+ 9,018

(a) Includes debt redemption.

(iv) *Adelaide Metropolitan Sewerage.* The Adelaide metropolitan sewerage system, comprising the Adelaide, Glenelg, Port Adelaide and Salisbury-Elizabeth areas of 172 square miles in all, includes a sewage farm, and treatment works at Glenelg and Port Adelaide. Work is starting on a new large treatment works at Bolivar. Financial and other particulars for 1956-57 to 1960-61 are shown hereunder.

ADELAIDE METROPOLITAN SEWERAGE: SUMMARY.

Year.	Length of Sewers.	Number of Connexions.	Invested Capital to 30th June.	Revenue.	Expenditure.			Surplus (+) or Deficit (-)
					Working Expenses. (a)	Interest.	Total.	
	Miles.		£	£	£	£	£	£
1956-57 ..	1,370	143,743	8,273,936	1,167,508	648,999	263,270	912,269	+ 255,239
1957-58 ..	1,411	149,104	9,213,112	1,393,260	653,810	309,145	962,955	+ 430,305
1958-59 ..	1,444	154,636	10,437,696	1,471,067	685,104	349,312	1,034,416	+ 436,651
1959-60 ..	1,471	160,407	11,305,495	1,576,769	676,660	401,009	1,077,669	+ 499,100
1960-61 ..	(b) 1,598	173,753	13,376,362	2,060,534	887,921	479,011	1,366,932	+ 693,602

(a) Includes debt redemption.

(b) Includes 93 miles of sewers in the Salisbury-Elizabeth area.

(v) *Country Sewerage Schemes.* Sewerage schemes are operating at Port Lincoln and Naracoorte. At Port Lincoln, there are 16 miles of sewer with an ocean outfall. At June, 1961, there were 238 connexions. The Naracoorte system has a treatment works, covers 2.43 square miles, and comprises 23 miles of sewer with 350 connexions.

(vi) *Country Water Supply.* Water district systems at 30th June, 1961, comprised an area of 12,927,201 acres. Supply came from reservoirs having a total capacity of 20,861 million gallons, from the River Murray and from underground sources.

Apart from local supplies, water from the River Murray comes from branches of the Mannum-Adelaide main and from the Morgan-Whyalla main.

The principal areas of underground supplies are in the south-east of the State where water from the Murray Basin can be had at moderate depths and from sand beds on Eyre Peninsula. The Uley-Wanilla sub-artesian basin has been used to augment Tod River District supplies since 1947 by up to 600 million gallons a year and the Lincoln Basin is now being developed.

The following table gives financial information on country waterworks for 1956-57 to 1960-61.

COUNTRY WATERWORKS, SOUTH AUSTRALIA: FINANCES.

(£.)

Year.	Invested Capital to 30th June.	Revenue.	Expenditure.			Deficit.
			Working Expenses. (a)	Interest.	Total.	
1956-57.. ..	22,123,508	825,462	1,077,159	726,474	1,803,633	978,171
1957-58.. ..	23,260,873	982,568	1,332,364	824,436	2,156,800	1,174,232
1958-59.. ..	25,581,664	1,004,580	1,330,545	901,386	2,231,931	1,227,351
1959-60.. ..	27,562,171	1,074,819	1,472,354	1,069,391	2,541,745	1,466,926
1960-61.. ..	30,104,405	1,325,719	1,456,824	1,155,471	2,612,295	1,286,576

(a) Includes debt redemption.

(vii) *Morgan-Whyalla Water Supply Scheme.* This scheme, which has 223 miles of main, was officially opened on 31st March, 1944, the capital invested to 30th June, 1961 being £2,687,707. Particulars of the scheme, where applicable, are included in the tables of the combined waterworks in (ii) above. Apart from supplying Whyalla, the main has been used to allow expansion of reservoir supplies in the northern agricultural area of the State, and to meet new demands caused by industrial growth at Whyalla, duplication of the main has commenced. During 1960-61, water used from the scheme amounted to 1,936 million gallons. Revenue was £337,753, working expenses £235,251, interest charges £131,981 and deficit £29,479.

5. *Western Australia.*—(i) *General.* The water supply, sewerage and drainage systems of Western Australia are principally under the management of two State Government Departments, namely, the Metropolitan Water Supply, Sewerage and Drainage Department, having as its territory the metropolitan area centred on Perth and extending to Kwinana and Serpentine in the south, Sorrento in the north and Greenmount on the east, and the Public Works and Country Water Supply Department, which controls the Comprehensive Water Supply Scheme (covering the Goldfields and Agricultural Areas Water Supply and the Great Southern Towns Water Supply) as well as supplies, from local sources, to 57 country towns not included in the scheme. Both Departments are administered under the portfolio of the Minister for Works and Water Supplies. (See also Chapter VIII.—Water Conservation and Irrigation, of this Year Book, pp. 278-281.)

(ii) *Metropolitan Water Supply, Sewerage and Drainage.* (a) *General.* The sources of the metropolitan water supply are the Serpentine Dam, the Canning Dam, the Churchman Brook Reservoir, the Victoria Reservoir and the Wungong Brook Diversion Weir. The

supply from these sources is supplemented as necessary from a number of artesian bores and from a pipeline link with Mundaring Weir. The largest reservoir, the Serpentine Dam, has a capacity of 39,000 million gallons.

The sewage treatment works of Perth and suburbs consist of primary sedimentation with separate sludge digestion and discharge of all effluent directly to the ocean. Plant for secondary treatment at Subiaco is now being provided. 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 1956-57 to 1960-61.

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.	
1956-57 ..	118,230	393,596	41.0	14,982	355	106.2	1,792	83,151
1957-58 ..	122,159	407,376	47.5	17,337	394	118.4	1,891	85,896
1958-59 ..	125,761	410,000	49.5	18,061	399	122.5	1,991	92,495
1959-60 ..	129,956	417,260	(a) 33.7	(a) 12,335	(a) 263	(a) 81.5	2,072	97,002
1960-61 ..	133,647	424,500	49.3	18,015	374	117.2	2,137	103,969

(a) Water restrictions in force for 180 days.

Water rating for 1960-61 was 1s. 6d. in the £1 on annual valuation.

(c) *Sewerage and Main Drainage.* Some particulars of the metropolitan sewerage and main drainage services for 1956-57 to 1960-61 are shown below.

METROPOLITAN SEWERAGE AND MAIN DRAINAGE, WESTERN AUSTRALIA: SERVICES.

Year.	Houses Connected.	Estimated Population Served.	Length of Sewers.	Length of Main Drains.
			Miles.	Miles.
1956-57	62,282	246,900	709	37
1957-58	63,969	253,800	713	66
1958-59	64,944	257,500	714	67
1959-60	65,781	260,600	719	69
1960-61	66,664	264,000	724	72

Sewerage rating for 1960-61 was 1s. 9d. in the £1 on annual valuation, while metropolitan main drainage rating was 4d. in the £1.

(d) *Finances.* The following table shows particulars of the finances of the Western Australian Metropolitan Water Supply, Sewerage and Drainage Department for the years 1956-57 to 1960-61.

**METROPOLITAN WATER SUPPLY, SEWERAGE AND MAIN DRAINAGE,
WESTERN AUSTRALIA: FINANCES.
(£.)**

Service and Year.	Capital Cost to 30th June.	Revenue.	Expenditure.			Surplus(+) or Deficit(-).
			Working Expenses.	Interest and Debt Redemp- tion.	Total.	
Water Supply—						
1956-57 ..	13,672,321	1,153,737	548,832	598,101	1,146,933	+ 6,804
1957-58 ..	15,283,093	1,260,873	617,754	658,876	1,276,630	+ 15,757
1958-59 ..	17,123,762	1,338,917	634,427	744,624	1,379,051	- 40,134
1959-60 ..	18,715,358	1,206,823	671,009	794,160	1,465,169	- 258,346
1960-61 ..	20,256,673	1,730,433	839,876	879,902	1,719,778	+ 10,655
Sewerage—						
1956-57 ..	5,834,419	644,568	309,690	300,531	610,221	+ 34,347
1957-58 ..	6,108,598	698,734	333,039	306,545	639,584	+ 59,150
1958-59 ..	6,453,517	735,244	401,175	310,450	711,625	+ 23,619
1959-60 ..	6,915,604	772,012	420,391	319,817	740,208	+ 31,804
1960-61 ..	7,643,368	934,190	505,425	361,706	867,131	+ 67,059
Main Drainage—						
1956-57 ..	1,009,399	69,255	26,594	39,133	65,727	+ 3,528
1957-58 ..	1,104,103	80,431	29,325	49,467	78,792	+ 1,639
1958-59 ..	1,350,083	88,846	40,684	55,090	95,774	- 6,928
1959-60 ..	1,616,772	93,013	48,867	69,831	118,698	- 25,685
1960-61 ..	1,771,641	113,805	49,970	78,822	128,792	- 14,987

(iii) *Country Water Supplies.* Information concerning country water supplies is included in Chapter VIII.—Water Conservation and Irrigation, of this Year Book (*see* p. 280).

6. *Tasmania.*—(i) *Waterworks.* At the end of 1959-60, there were 95 municipally operated waterworks in Tasmania. The capacity of the reservoirs was 1,750 million gallons, the estimated population served was 250,000 and the number of tenements served was 63,000. In addition, two regional schemes operated by the State Government were serving an estimated population of 35,000 in 9,000 tenements.

(ii) *Sewerage.* At the end of 1959-60, there were 12 municipal sewerage schemes in operation in Tasmania. They served an estimated population of 165,000 and the number of tenements served was 41,600.

7. *Northern Territory.*—Information relating to water supply in the Northern Territory may be found in Chapter VIII.—Water Conservation and Irrigation (*see* p. 282).

§ 6. Harbour Boards and Trusts.

NOTE.—The number and net tonnage of vessels which entered the major ports in each State during the years 1959-60 and 1960-61 are shown in Chapter XIV.—Transport and Communication (*see* p. 520). Particulars of oversea and interstate cargo discharged and shipped during 1960-61 are shown on page 522 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 seven Commissioners comprising three full-time members and four part-time members representing shipping and other interests. The Board was constituted on 1st February, 1936, under the Maritime Services Act 1935, 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. It 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 Ports of Sydney, Newcastle, and Botany Bay, the Board is also responsible for the provision of adequate wharfage 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 four miles, there are two separate channels, each 700 feet wide, the Western Channel not less than 42 feet deep (low water ordinary spring tide) and the Eastern Channel 41 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 three dolphin berths each 550 feet long, and 100 effective commercial cargo berths with a total length of 47,463 feet controlled by the Board. Accommodation for harbour craft amounts to 3,465 feet, while the length of other berths including oil and private wharves totals 28,511 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 ranks amongst the largest graving docks in the world, being 1,139 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 1956-57 to 1959-60.

MARITIME SERVICES BOARD: FINANCES OF THE PORT OF SYDNEY.

(£.)

Year.	Total Capital Debt at 30th June.	Revenue.			Expenditure.			Surplus (+) or Deficit (-).
		Wharfage and Transhipment Rates.	Tonnage Rates and Berthing Charges.	Total.	Administration and Maintenance.	Interest, Debt Redemption, Exchange, etc.	Total. (a)	
1956-57	14,041,252	1,725,590	385,006	2,887,506	1,857,539	722,373	2,869,912	+ 17,594
1957-58	14,546,035	1,822,587	378,284	2,899,795	1,964,830	789,230	2,999,060	- 99,265
1958-59	15,322,219	1,871,384	403,342	2,995,160	1,830,589	843,580	2,924,169	+ 70,991
1959-60	16,400,513	2,138,724	414,071	3,326,944	1,870,595	903,590	3,274,185	+ 52,759

(a) Excludes capital expenditure but includes transfers to the Renewals Fund Reserve Account, 1956-57, £290,000; 1957-58, £245,000; 1958-59, £250,000; and 1959-60, £500,000.

The implementation of the Maritime Services (Amendment) Act 1960, as from 1st May, 1961, resulted in some marked changes in the Board's accounting system. The amendment to the Act provided for a new fund known as the Maritime Services Board Fund to be established to replace the Sydney Harbour Trust Fund. All revenue earned by the Board at the Ports of Sydney, Newcastle and Botany Bay, with the exception of that earned from pilotage and navigational services, is now credited to the Maritime Services Board Fund and all revenue expenditure incurred at the three ports is drawn from that Fund.

**MARITIME SERVICES BOARD FUND: FINANCES OF THE PORTS OF SYDNEY,
NEWCASTLE AND BOTANY BAY.**

Year.	Total Capital Debt at 30th June.	Revenue.			Expenditure.			Surplus(+) or Deficit(-).
		Wharfage and Transhipment Rates.	Tonnage Rates and Berthing Charges.	Total.	Administration and Maintenance.	Interest, Debt Redemption, Exchange, etc.	Total. (a)	
1960-61	(b)	3,130,441	631,432	4,689,602	2,565,141	2,081,110	4,646,251	+ 43,351

(a) Excludes capital expenditure but includes transfer to the Renewals Fund Reserve Account £1,025,000.
(b) Not available.

(c) *Port of Newcastle.* As from 1st May, 1961, the Maritime Services Board of New South Wales became the single authority for the Port of Newcastle. This was brought about by the implementation of the Maritime Services (Amendment) Act 1960, which resulted in the Board's jurisdiction being extended to include the operation of the coal loading equipment formerly vested in the Department of Railways and the dredging, together with the maintenance and construction of wharves and other port facilities, which had been the responsibility of the Department of Public Works.

An Advisory Committee consisting of eight members, appointed by the Governor, assists the Board in matters associated with the operation of the port. 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 1,500 feet, and the navigable channel, with a depth of 25 feet 6 inches at low water, is 350 feet wide. Wharfage accommodation amounts to approximately 13,700 feet, including about 2,700 feet of privately owned wharfage. There are also several 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, however, continues to be the constructing authority in respect of works, dredging and maintenance. An Advisory Committee consisting of eight members appointed by the Governor has been formed to assist the Board in the operation of the port. 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 6,800 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. The developmental programme for Port Kembla includes the construction of an inner harbour to provide wharfage for the steelworks in addition to a modern fast loading coal berth and general cargo berths.

The first stage of the inner harbour basin was opened to shipping on 28th November, 1960. Present accommodation is 1,175 feet of wharfage, with 36 feet (low water ordinary spring tide) of water, alongside. Width in the entrance to the inner harbour basin is 400 feet.

(e) *Botany Bay.* The Maritime Services Board of New South Wales is the administrative and controlling authority. The port is primarily a discharging centre for the oil refinery at Kurnell and two berths are available as well as tanker mooring buoys. The entrance to the Bay is approximately 1½ miles wide, with a minimum depth of about 36 feet in the dredged swinging basin.

(f) *Other Ports.* In addition to the ports of Sydney, Newcastle, Port Kembla and Botany Bay, 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 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 £8,057,254 in 1960-61. This figure includes the revenue for the ports of Sydney, Newcastle and Botany Bay (see table on p. 754) and State navigation service collections (£3,367,652 in 1960-61). Commonwealth Government revenue from light dues and navigation receipts, for the whole of Australia, amounted to £710,205 in 1960-61.

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, pages 970-2. Following an amendment to the Melbourne Harbour Act, the Board of Commissioners had a change in representation in 1960. A part-time Commissioner representing the Trades Hall Council replaced the representative of the waterside workers. The number of Commissioners remains at five. At 31st December, 1960, the sheds available for wharfage accommodation had a length of 24,912 feet, covering an area of 1,940,942 square feet. The area of water in Port Philip Bay and the 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 61,890 feet, giving an area of over 60½ acres of wharfage, and 57,150 feet of effective berthing space. During 1960, work was continued on the new berths at Appleton Dock, Victoria Docks, South Wharf, Port Melbourne and Williamstown. The depth of water (low water ordinary spring tide) from the main channels to the principal wharves is 31 to 37 feet.

(b) *Finances.* The following table shows particulars of the financial operations of the Trust during the years 1956 to 1960.

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)	
1956 ..	11,296,811	1,841,176	2,676,698	1,649,047	483,905	145,825	2,662,047	+ 14,651
1957 ..	12,175,428	1,882,501	2,746,513	1,557,933	520,223	250,938	2,718,159	+ 28,354
1958 ..	12,907,279	2,043,848	3,020,913	1,310,119	603,899	631,988	2,958,686	+ 62,227
1959 ..	13,833,011	2,100,924	3,292,329	1,634,513	766,909	376,397	3,201,943	+ 90,386
1960 ..	14,199,060	2,492,139	3,948,187	1,962,110	766,532	641,175	3,872,264	+ 75,923

(a) Includes statutory payments to Consolidated Revenue and Geelong Harbour Trust:—1956, £383,270; 1957, £389,065; 1958, £412,680; 1959, £424,124; 1960, £502,447. Excludes capital expenditure:—1956, £1,609,928; 1957, £1,054,236; 1958, £1,658,589; 1959, £1,458,499; 1960, £1,280,529.

(ii) *Geelong Harbor Trust.* The Geelong Harbor Trust, constituted in 1905, is under the control of three Commissioners appointed from time to time by the Governor-in-Council. One of these, the chairman, is on a full time basis.

At the end of 1960, there were 17 effective berths in the port, while two extra berths at Refinery Pier were under construction and a further berth for general cargo is in the course of planning. Four berths have a depth of 36 feet at low water and all others (except Yarra Pier 29 feet) have a depth of 32 feet at low water.

Total trade for 1960 amounted to 5,470,466 tons, imports being 3,520,366 tons and exports 1,950,100 tons. During 1960, 551 vessels with a total gross tonnage of 5,003,358 tons entered the port.

Revenue for the year 1960 was £1,150,310 and expenditure from revenue totalled £682,359. At 31st December, 1960, the value of the Trust's fixed assets was £7,827,378 and loans outstanding amounted to £2,894,762.

(iii) *Portland Harbor Trust.* Construction of an all weather deep-sea port of three berths with a low water depth of 36 feet was commenced following the proclamation of the Portland Harbor Trust Act on 18th May, 1951. This was completed to operational standards in 1960.

Operating revenue for the year ended 30th June, 1960, was £54,522 and revenue expenditure was £31,411. The value of the Trust's fixed assets, less depreciation, was £5,605,014 at 30th June, 1960, and loans and advances outstanding amounted to £5,765,560.

During the year ended 30th June, 1960, total trade of the port was 183,765 tons which was carried in 88 vessels of a total gross tonnage of 632,490.

(iv) *Other Victorian Ports.* There are no other Victorian ports 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. Adequate dry-docking facilities are available. The finances of Brisbane Harbour for the years 1955-56 to 1959-60 are shown below.

BRISBANE HARBOUR: FINANCES.

(£'000.)

Year.	Loan Indebtedness at 30th June.	Receipts.		Payments.	
		Harbour Dues.	Total.	Working Expenses.(a)	Total.
1955-56	2,899	701	817	582	772
1956-57	3,011	671	918	843	1,048
1957-58	3,042	696	938	731	944
1958-59	2,702	709	1,097	664	883
1959-60	2,512	772	1,059	731	953

(a) Excludes Interest and Redemption included in Total.

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

(iii) *Harbour Boards.* Harbour boards control the ports of Bowen, Bundaberg, Cairns, Gladstone, Mackay, Rockhampton and Townsville. Finances for each port for the year ended 30th June, 1960, are shown below, together with a summary for the years ended 30th June, 1956 to 1960.

HARBOUR BOARDS, QUEENSLAND: FINANCES.

(£.)

Harbour Board.	Loan Indebtedness at 30th June.	Revenue.		Expenditure (excluding Loan).		Surplus(+) or Deficit(-).
		Wharfage and Harbour Dues.	Total.	Working Expenses.	Total (including Interest and Redemption). (a)	
Bowen	275,327	12,533	61,411	9,827	15,191	+ 46,220
Bundaberg	2,213,569	115,782	318,521	8,714	192,263	+ 126,258
Cairns	256,354	198,159	290,790	182,870	261,348	+ 29,442
Gladstone	667,940	49,785	97,124	28,665	100,380	- 3,256
Mackay	1,310,496	208,273	395,559	111,824	372,627	+ 22,932
Rockhampton	630,303	45,483	62,674	38,326	61,846	+ 828
Townsville	3,076,448	278,896	580,962	181,199	523,115	+ 57,847
Total, 1959-60 ..	8,430,437	908,911	1,807,041	561,425	1,526,770	+ 280,271
„ 1958-59 ..	7,099,197	898,822	1,602,409	602,391	1,696,390	- 93,981
„ 1957-58 ..	5,435,172	775,436	1,226,581	603,081	1,190,356	+ 36,225
„ 1956-57 ..	3,567,335	757,778	1,005,986	578,259	1,170,528	- 164,542
„ 1955-56 ..	2,885,528	720,642	955,846	512,776	1,361,568	- 405,722

(a) Includes expenditure on capital works from accumulated revenue.

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 five deep sea ports of Port Adelaide, Port Pirie, Wallaroo, Port Lincoln and Thevenard. At a few ports, the wharves or jetties are privately controlled, the principal of these being at Whyalla, Ardrossan and Rapid Bay, all of which are controlled by the Broken Hill Pty. Co. Ltd. Port Augusta is controlled by the Commonwealth Railways on behalf of the Commonwealth Government. Maximum depths of water (low water) at the wharves of the main ports range from 24 feet at Port Pirie to 35 feet at Port Adelaide (Outer Harbour). The following table shows the finances of the Board for 1956-57 to 1960-61.

THE SOUTH AUSTRALIAN HARBORS BOARD: FINANCES.

(£.)

Year.	Capital at 30th June. (a)	Revenue.	Expenditure from Revenue.			Surplus (+) or Deficit (-)
			Working Expenses.	Interest.	Total.	
1956-57.. ..	13,232,185	2,112,718	1,427,882	434,042	1,861,924	+ 250,794
1957-58.. ..	14,189,715	2,119,826	1,487,014	505,322	1,992,336	+ 127,490
1958-59.. ..	15,325,443	2,156,669	1,464,006	550,364	2,014,370	+ 142,299
1959-60.. ..	16,324,529	2,314,999	1,574,774	612,711	2,187,485	+ 127,514
1960-61.. ..	17,432,015	2,714,743	1,684,618	658,269	2,342,887	+ 371,856

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

5. Western Australia.—(i) *Fremantle Harbour Trust.* The Port of Fremantle is operated and controlled by the Fremantle Harbour Trust, a body corporate administered by a Board of five Commissioners appointed triennially by the Governor. The port covers an extensive water area of some 180 square miles and comprises an inner and an outer harbour. The inner harbour includes 18 deep water land-backed berths, providing more than 690,000 sq. ft. of covered storage space and 11,148 feet of wharf berth accommodation. All inner harbour berths are dredged to a depth of 36 feet. The outer harbour

includes three main anchorages, Gage Roads, Owen Anchorage and Cockburn Sound. Deep water jetties are available in the outer harbour including the oil refinery jetties in Cockburn Sound. Ocean going deep draft ships enter the Sound by means of channels dredged through Success and Parmelia Banks to a low water depth of 38 feet and a bottom width of 500 feet. The depth of water at the refinery jetties is a minimum of 44 feet.

Gross earnings for the year 1960–61 amounted to £3,081,154, working expenses to £2,485,039, interest charges to £256,791, debt redemption to £73,477 and renewals fund to £2,000. Special loan redemptions were £295,312 and net capital totalled £7,598,832.

(ii) *Albany Harbour Board.* The Albany Harbour is controlled by a board of five members appointed by the Government. The depth of water in the entrance channel is 33 feet, at one arm of the jetty 31 feet and at the other arm 34 feet. On approaches to wharf berths, the depth is 30 feet and dredging to accomplish a depth of 34 feet is being carried out. Wharf accommodation consists of 1,115 feet, and in addition the Deepwater Jetty has 2,500 feet of accommodation. Gross earnings for the year 1960–61 amounted to £143,195, working expenses £48,043, interest and sinking fund charges, £86,100, and amounts debited to loan capital account, £1,803,990.

(iii) *Bunbury Harbour Board.* The Bunbury Harbour is controlled by a board of five members appointed by the Government. The depth of water in the harbour is 30 feet and berthing accommodation is 3,700 feet. Gross earnings for the year 1960–61 amounted to £146,841, working expenses £99,928, interest and sinking fund charges £81,827, and amounts debited to loan capital account, £1,954,964.

(iv) *Other Ports.* The following ports are controlled by the State Government Harbour and Lights Department:—Geraldton, Yampi, Port Hedland, Carnarvon, Wyndham, Derby, Point Samson, Busselton, Onslow and Broome. The Port of Esperance is under the control of the Railways Commission.

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 and Wynyard (Table Cape), Devonport, Strahan, Currie (King Island), and White-mark (Flinders Island), and the harbour trusts those of Smithton and Ulverstone. Aggregate receipts of revenue accounts of all these authorities during the year 1959–60 were £1,489,325, and expenditures £1,290,793 including loan charges £280,484. The total receipts of the Hobart Marine Board during 1959–60 were £557,188, loan charges amounted to £100,684 and total expenditure to £499,630. Launceston Marine Board receipts during 1959–60 amounted to £350,318, loan charges to £33,358 and total expenditure to £296,390. Loan indebtedness of all marine boards and trusts at 30th June, 1960, was £4,019,481, of which £1,228,245 was in respect of Hobart (including Port Huon Wharf) and £460,281 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.*—A Board of Fire Commissioners, consisting of five members, one appointed by the State Government (President) and one each representing insurance companies, local government authorities, volunteer firemen, and permanent firemen, operates under the Fire Brigades Act 1909–1958, and 155 fire districts had been constituted at the end of 1960. The cost of maintenance of fire brigades is borne in proportions of local councils and the Government each one-eighth, and the insurance companies three-quarters. The Board's borrowing power is limited to £1,000,000.

At 31st December, 1960, the authorized strength of the Fire Brigade throughout the fire districts of New South Wales was 395 officers and 1,131 permanent and 2,564 volunteer firemen. Corresponding figures for the Sydney Fire District were 325, 1,027 and 322. The revenue for the year 1960 was £2,926,907, made up as follows:—from the Government,

£362,323; municipal and shires, £352,323; fire insurance companies and firms, £2,173,938, and from other sources, £28,323. The disbursements for the year were £3,110,511. The Board of Fire Commissioners provides the fire protection services for Canberra, in the Australian Capital Territory, and the cost of these services is reimbursed by the Commonwealth Government.

Under the Bush Fires Act 1949–1958, a Bush Fire Fighting Fund exists from which finance is provided for the prevention and fighting of bush fires. Contributions to the Fund by the Government, councils and insurance companies are in the proportion of one quarter, one quarter and one-half, respectively. At 30th June, 1961, Volunteer Brigades, equipped by means of this fund, numbered 2,500 with an active membership in excess of 60,000 persons. Up to 30th June, 1961, expenditure from the Fund for equipment amounted to £1,579,555.

2. *Victoria.*—(i) *General.* In Victoria, fire brigades are controlled by the Metropolitan Fire Brigades Board consisting of ten members, including an employees' representative, and the Country Fire Authority also consisting of ten members.

(ii) *Metropolitan Fire Brigades Board.* The Metropolitan Fire Brigades Board receives contributions from the municipalities and the insurance companies in the proportion of one-third and two-thirds respectively. On 30th June, 1961, the Board had under its control 45 stations, 924 permanent staff, 221 special service and clerical, etc., staff, and 20 part-time firemen. The total receipts for 1960–61 were £1,927,423 comprising contributions, £1,616,440, receipts for services, £193,131 and interest and sundries, £117,882. The expenditure was £1,784,581.

(iii) *Country Fire Authority.* This authority 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 receives contributions in the proportion of two-thirds from insurance companies and one-third from the Treasury. At 30th June, 1961, the Country Fire Authority Act applied to 202 insurance companies, 206 urban and 1,035 rural fire brigades. The effective registered strength of the brigades was 102,620 members.

Income for the year 1960–61 amounted to £626,448. Total expenditure other than loan amounted to £555,721.

3. *Queensland.*—(i) *General.* Fire Districts are constituted under the Acts of 1920–1956. 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:—Treasury one-seventh, insurance companies five-sevenths, and local authorities one-seventh. The insurance companies' contribution is paid to the State Government and thence to Fire Brigades.

(ii) *Fire Brigade Boards.* At 30th June, 1960, there were 78 Fire Brigade Boards. The total number of stations was 142 and full-time staff numbered 789, including 23 administrative, 163 officers and 603 firemen. Volunteers numbered 110. Part-time staff numbered 1,099 including 77 administrative, 111 officers, and 911 firemen. The total revenue for the year 1959–60 was £1,206,434, received mainly from the following sources:—Government £164,778, local authorities £164,778, insurance companies £823,890. Loan receipts (Government and other) were £125,496. The total expenditure for the year was £1,168,358, the chief items being salaries and wages £881,386, and interest and redemption of loans £85,951.

4. *South Australia.*—The Fire Brigades Act 1936–1958 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, five-ninths by insurance companies, and two-ninths by the municipalities concerned. When the Treasury proportion exceeds £10,000, the excess is borne five-sevenths by insurance companies and two-sevenths by the municipalities. At 30th June, 1961, there were altogether 35 fire brigade stations, of which 12 were metropolitan and 23 country.

The strength of the permanent staff at 31st December, 1961, was 391, including 272 officers and men, 89 country auxiliary firemen and 30 other employees (including maintenance workers). The total revenue for the year 1960–61 was £494,155, including contributions of £416,268 made up as follows:—insurance companies £250,621, Treasury £65,398 and municipalities £100,249. The Treasury contribution includes an additional grant of £52,986.

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 42 fire districts at 30th September, 1961. 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 58 and 161 respectively. The brigades, throughout the State, controlled by the Western Australian Fire Brigades Board at 30th September, 1961, numbered 60, with a staff of 1,376 including 274 permanent officers and firemen and 1,102 volunteer brigade officers and firemen. The revenue for the year ended 30th September, 1961, was £565,398 and the expenditure £565,619.

Under the Bush Fires Act, a Bush Fires Board, consisting of ten members, five of whom are nominated by the Country Shire Councils 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 1,660 at 30th June, 1961, and the establishment of bush fire brigades, 761 at 30th June, 1961. Many individual brigades are large organizations with numerous self-contained sections.

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 two persons nominated by the Minister, one person elected by the City or Municipal Councils representatives and three persons elected by the insurance representatives of the Fire Brigades Boards. Contributions towards the cost of operations are on the basis of one quarter each from the Treasury and the municipalities and one half from the insurance companies concerned. The cost for the year 1959–60 amounted to £158,000. There were, at 30th June, 1960, 23 brigades controlling 36 stations, and their aggregate staffs numbered 552, including 101 permanent officers, 369 part-time firemen, including officers, and 82 volunteers.