

CHAPTER 19

LOCAL GOVERNMENT

This chapter includes, in addition to information on the operation of local government authorities, information on the operation of certain semi-government authorities. The latter information is not comprehensive for this type of authority, and is included partly because of the association of the functions performed with those of local government authorities, and partly for convenience in preparation. Particulars of the activities of other semi-government authorities, e.g. transport, electricity and gas, and banking undertakings, for which only some financial statistics are given in this chapter, are included in the chapters relevant to those subjects.

Coverage

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, numbering 900, exercise general control, 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 (except for the City of Darwin and Alice Springs), practically the whole of Australia comes within local government jurisdiction.

The financial statistics in the following section 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.

Semi-government 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 of Australia as a whole cannot be obtained without reference to each class operating in that particular field. These semi-government 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 the sections 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.

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. 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 on pages 602-8 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 on page 601 of that section. On pages 594-7 some information is given of the revenue and expenditure of local government authorities in respect of roads.

Water supply and sewerage

In the cities of Sydney, Melbourne and Perth the control of water supply and sewerage is vested in special boards, while in Adelaide these services are under the direct supervision of a government department. 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.

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.

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.

Local government authorities

New South Wales

For purposes of local government the whole of the Eastern and Central land divisions and more than two-thirds of the sparsely populated Western division have been divided into cities, municipalities (most principal towns) and shires (mainly large rural areas, some of which include important towns). At the end of 1969 the area incorporated was 272,452 square miles, or nearly nine-tenths of the total area of the State. All cities, municipalities and shires 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, gas, abattoirs. At 31 December 1969 there were fifty-three county councils, including the Sydney County Council (constituted under the Gas and Electricity Act).

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 (41,600 acres) in Westernport Bay, Lady Julia Percy Island (653 acres) off Port Fairy, Bass Strait Islands (966 acres), part of Gippsland Lakes (81,920 acres), and Tower Hill (1,459 acres) adjacent to the Borough of Koroiit. 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.

Queensland

The whole of the State (except certain islands along the coast) is incorporated into cities, towns and shires under the Local Government Act (City of Brisbane Act in the case of Brisbane).

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.

Western Australia

Local government is established throughout the State, the divisions being cities, towns and shires.

Tasmania

The whole State is divided into municipal districts, Hobart, Launceston, and Glenorchy being incorporated as cities under separate Acts.

Area, population, dwellings, and value of rateable property

The area, population, dwellings, and value of rateable property in the incorporated areas of each State are shown in the following table. The valuations relate to rateable property only and exclude government and other non-rateable property, whose value in the aggregate is considerable. In some cases councils rate on annual value, or unimproved capital value, or improved capital value, or partly on each of these bases of valuation. The amounts stated are the totals for the areas rated according to each basis of valuation. Particulars of dwellings are in accordance with the definition used in the 1966 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 reference 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 vacant dwellings available for sale and renting, 'week-end' and holiday dwellings, and other dwellings temporarily unoccupied on the night of the Census. Dwellings being built are not included.

In the following table particulars of number, area, and value of rateable property refer to estimates made, where practicable, for the capital city statistical division and outside this division. Wherever the statistical boundary cuts across a local government area the estimates have involved either the inclusion or exclusion of the whole of the local government authority concerned in, or from, the capital city statistical division. Particulars of population refer to estimates made for capital city statistical division and outside this division in accordance with the definition of boundaries used in the 1966 census and exclude migratory population and population in unincorporated areas.

LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS, AND VALUE OF RATEABLE PROPERTY, STATES, 1968-69

Location	Number	Area	Popula- tion	Dwellings		Value of rateable property		
				Occupied	Unoccu- pied	Unim- proved capital value	Improved capital value	Annual value
				No. (b)	No. (b)	\$'000	\$'000	\$'000
		'000 acres	'000 (a)					
New South Wales(c)—								
Sydney Statistical Division	40	974	2,541	730,877	39,701	4,116,969	9,860,315	668,852
Other	185	173,396	1,693	458,665	61,845	1,821,878	n.a.	n.a.
<i>Total, New South Wales</i>	<i>225</i>	<i>174,369</i>	<i>4,234</i>	<i>1,189,542</i>	<i>101,546</i>	<i>5,988,847</i>	<i>n.a.</i>	<i>n.a.</i>
Victoria(d)—								
Melbourne Statistical Di- vision	55	1,933	2,387	737,603	}	n.a.	10,134,080	550,153
Other(e)	155	54,177	990	302,385		n.a.	4,795,014	240,988
<i>Total, Victoria</i>	<i>210</i>	<i>56,110</i>	<i>3,377</i>	<i>1,039,988</i>		<i>n.a.</i>	<i>14,929,094</i>	<i>791,141</i>
Queensland(a)—								
Brisbane Statistical Di- vision	9	2,427	866	251,991	}	939,108	n.a.	n.a.
Other	122	423,826	896	261,821		785,325	n.a.	n.a.
<i>Total, Queensland</i>	<i>131</i>	<i>426,253</i>	<i>1,762</i>	<i>513,812</i>		<i>1,724,433</i>	<i>n.a.</i>	<i>n.a.</i>
South Australia(f)—								
Adelaide Statistical Di- vision	31	573	794	217,590	12,089	n.a.	2,338	116,912
Other	111	36,679	314	81,662	12,502	n.a.	1,136	56,798
<i>Total, South Australia</i>	<i>142</i>	<i>37,252</i>	<i>1,108</i>	<i>299,252</i>	<i>24,591</i>	<i>n.a.</i>	<i>3,474</i>	<i>173,711</i>
Western Australia(a)—								
Perth Statistical Division	27	1,327	636	190,713	}	441,716	n.a.	35,572
Other	117	623,262	308	90,713		252,244	n.a.	6,402
<i>Total, Western Australia</i>	<i>144</i>	<i>624,589</i>	<i>946</i>	<i>281,426</i>		<i>693,960</i>	<i>n.a.</i>	<i>41,974</i>

For footnotes see next page.

**LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS, AND
VALUE OF RATEABLE PROPERTY, STATES, 1968-69—continued**

Location	Number	Area	Popula- tion	Dwellings		Value of rateable property		
				Occupied	Unoccu- pied	Unim- proved capital value	Improved capital value	Annual value
				No. (b)	No. (b)	\$'000	\$'000	\$'000
Tasmania(a)—		'000 acres	'000 (a)					
Hobart Statistical Division	5	392	142	37,947	2,836	174,931	585,559	34,354
Other	44	16,493	246	61,418	7,964	200,089	876,563	48,951
<i>Total, Tasmania</i>	<i>49</i>	<i>16,885</i>	<i>388</i>	<i>99,365</i>	<i>10,800</i>	<i>375,020</i>	<i>1,462,122</i>	<i>83,305</i>

(a) Year ended 30 June 1969. Total population less migratory and unincorporated. (b) Estimated on basis of Census 30 June 1966. (c) Based on year ended 31 December 1968. (d) Based on year ended 30 September 1969. (e) Excludes Yallourn Works Area under the jurisdiction of the State Electricity Commission and other unincorporated areas. (f) Year ended 30 June 1968.

Local government finances

The following tables show financial statistics for local government authorities, for the latest available annual accounting periods (see footnotes to tables on pages 595-8).

Ordinary services. In the returns of revenue and expenditure 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, STATES, 1968-69
(\$'000)**

	N.S.W.(a)	Vic.(b)	Qld(c)	S.A.(d)	W.A.(e)	Tas.(c)	Total
REVENUE (EXCLUDING LOAN RECEIPTS)							
Taxation—							
Rates (net)	143,812	94,500	48,680	24,369	19,572	10,496	341,429
Penalties	1,477	514	..	..	..	..	1,990
Licences	3,731	631	786	232	425	171	5,976
Vehicle registration fees and taxes . . . . .	..	..	..	..	5,115	..	5,115
<i>Total, taxation</i>	<i>149,020</i>	<i>95,644</i>	<i>49,467</i>	<i>24,601</i>	<i>25,112</i>	<i>10,667</i>	<i>354,511</i>
Public works and services—							
Sanitary and garbage services	11,537	4,143	9,551	347	1,370	33	26,982
Council properties	12,730	(e)14,078	2,707	1,798	6,450	1,283	39,047
Street construction	9,590	24,557	..	4,951	3,440	136	42,674
Other	19,370	5,883	3,411	410	2,758	(f)417	32,249
<i>Total, public works, etc.</i>	<i>53,227</i>	<i>48,661</i>	<i>15,670</i>	<i>7,507</i>	<i>14,018</i>	<i>1,869</i>	<i>140,952</i>
Government grants—							
Roads	38,194	798	5,935	(g)7,357	10,661	1,550	64,496
Other	7,854	5,599	2,596	802	512	278	17,647
<i>Total, government grants</i>	<i>46,048</i>	<i>6,397</i>	<i>8,532</i>	<i>8,159</i>	<i>11,179</i>	<i>1,828</i>	<i>82,143</i>
Profits from business undertakings . . . . .	..	849	..	18	..	..	867
Fees and fines . . . . .	..	1,367	..	536	501	..	3,166
All other . . . . .	..	3,703	(h)22,670	..	1,502	887	..
<i>Total revenue</i>	<i>248,295</i>	<i>156,621</i>	<i>96,338</i>	<i>40,822</i>	<i>52,312</i>	<i>15,251</i>	<i>609,639</i>

For footnotes see next page.

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND
EXPENDITURE, STATES, 1968-69—*continued*
(\$'000)

	N.S.W.(a)	Vic.(b)	Qld(c)	S.A.(d)	W.A.(c)	Tas.(c)	Total
EXPENDITURE (EXCLUDING LOAN EXPENDITURE)							
General administration	17,597	23,909	10,285	3,886	4,401	(i)2,000	62,078
Debt services (excluding business undertakings)—							
Interest	10,307	11,323	11,831	2,303	3,148	1,687	40,598
Redemption	17,429	13,276	11,967	2,826	4,955	1,605	52,059
Exchange . . . . .	..	..	175	..	..	..	175
Other . . . . .	..	105	96	..	..	..	201
<i>Total, debt, etc.</i>	27,736	24,705	24,069	5,129	8,103	3,292	93,033
Public works and services—							
Roads, streets and bridges	101,934	47,836	22,264	21,513	16,690	4,830	215,066
Health administration	6,416	1,491	5,614	716	924	} 883	50,076
Sanitary and garbage services	15,838	7,824	7,029	1,304	2,039		
Street lighting	5,739	2,841	1,429	973	658	373	12,013
Council properties	34,925	30,323	10,034	4,387	11,398	2,219	93,287
Other	14,258	(j)11,512	467	1,074	4,776	546	32,633
<i>Total, public works, etc.</i>	179,110	101,826	46,837	29,967	36,485	8,851	403,076
Grants—							
Fire brigades	1,364	2,146	684	348	468	} 568	21,206
Hospitals and ambulances	} 994	} 354	} ..	} 835	} 48		
Other charities							
Other	(k)8,467	(l)2,328	2,232	84	278		
<i>Total, grants</i>	10,826	4,828	2,916	1,275	794	568	21,206
All other	10,269	1,609	(m)15,901	6	636	66	28,486
<i>Total expenditure</i>	245,537	156,878	100,008	40,263	50,417	14,776	607,879

(a) Figures for New South Wales relate to the year ended 31 December 1968, and are on an income and expenditure basis as distinct from those of other States which are on a cash basis. (b) Year ended 30 September 1969. Figures include transactions of Private Street Accounts and Separate Rate Accounts. (c) Year ended 30 June 1969. (d) Year ended 30 June 1968. (e) Includes \$4,523,000 plant hire. (f) Includes Private Roads and Streets construction, Other Private Works and other. (g) Includes \$3,667,000 reimbursement from Highways Department. (h) Includes the following reimbursements: \$5,782,000 from Main Roads Department, \$1,763,000 from other State Government Departments, and \$7,371,000 from other sources. (i) Includes interest on overdraft. (j) Includes \$1,714,000 other capital expenditure. (k) To Main Roads Department. (l) Includes \$1,731,000 to Country Roads Board. (m) Includes expenditure on work done for reimbursement: for Main Roads Department \$5,308,000; for other State Government Departments \$1,826,000; other \$7,152,000.

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND
EXPENDITURE, STATES, 1964-65 TO 1968-69
(\$'000)

Year	N.S.W.(a)	Vic.(b)	Qld(c)	S.A.(c)	W.A.(c)	Tas.(c)	Total
Revenue(d)—							
1964-65	187,689	116,405	66,088	32,360	34,921	10,930	448,393
1965-66	194,387	125,017	73,655	36,190	34,274	11,818	475,340
1966-67	214,626	137,232	78,514	40,314	39,716	12,850	523,252
1967-68	228,213	152,036	88,531	40,822	45,158	14,033	568,793
1968-69	248,295	156,621	96,338	(e)	52,312	15,251	(e)
Expenditure(d)—							
1964-65	181,265	119,013	70,730	33,147	31,588	11,278	447,022
1965-66	193,004	130,392	77,713	37,136	35,400	11,585	485,230
1966-67	212,587	136,984	83,150	39,280	40,334	12,411	524,745
1967-68	224,275	146,738	95,595	40,263	44,949	13,819	565,638
1968-69	245,537	156,878	100,008	(e)	50,417	14,776	(e)

(a) Years ended previous 31 December. (b) Years ended 30 September. Figures include transactions of Private Street Accounts. (c) Years ended 30 June. (d) Excludes loan receipts or expenditure. (e) Not yet available.

Business undertakings. The tables following show 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, STATES, 1968-69**
(*\$'000*)

	<i>N.S.W.(a)</i>	<i>Vic.(b)</i>	<i>Qld.(c)</i>	<i>S.A.(d)</i>	<i>W.A.(c)</i>	<i>Tas.(c)</i>	<i>Total</i>
REVENUE (EXCLUDING LOAN RECEIPTS)							
Water supply and sewerage—							
Rates	13,604		(e)16,533	..	253	5,358	} 50,824
Charges for services and sales of products	4,061	723	9,520	1	34	737	
Other (including grants)	(f)7,126	24	1,765	..	88	1,371	
<i>Total, water supply, etc.</i>	24,790	747	27,818	1	375	7,466	61,197
Electricity and gas—							
Rates	1,252		18	..	..	..	} 360,123
Charges for services and sales of products	259,782	55,255	39,640	1,132	3,044	..	
Other (including grants)	(f)11,290	479	4,086	282	..	..
<i>Total, electricity, etc.</i>	272,324	55,733	43,744	1,414	3,044	..	376,260
Railways, tramways and omnibuses—							
Charges for services and sales of products	..	..	7,580	..	..	..	7,580
Other (including grants)	..	..	3,265	..	..	..	3,265
<i>Total, railways, etc.</i>	..	..	10,846	..	..	..	10,846
Other—	(g)	(h)	(i)	(j)	(k)	(l)	
Rates	26	..	22	..	..	..	48
Charges for services and sales of products	14,160	1,719	221	529	501	650	17,780
Other (including grants)	1,344	64	1,844	65	..	111	3,428
<i>Total, other</i>	15,530	1,783	2,088	594	501	761	21,257
Grand total	312,645	58,262	84,496	2,009	3,920	8,227	469,559
EXPENDITURE (EXCLUDING LOAN EXPENDITURE)							
Water supply and sewerage—							
Working expenses	9,151	507	8,843	1	261	4,513	23,277
Depreciation	(m)-61	58	..	..	..	..	-3
Debt charges	8,745	164	7,362	..	157	2,886	19,314
Other (including transfers to general revenue and construction)	..	8	3,851	..	..	..	3,859
<i>Total, water supply, etc.</i>	17,836	737	20,056	1	418	7,399	46,447
Electricity and gas—							
Working expenses	220,521	51,221	31,636	1,248	2,141	..	306,766
Depreciation	6,819	1,506	..	..	448	..	8,773
Debt charges	30,941	1,843	7,381	62	530	..	40,756
Other (including transfers to general revenue and construction)	..	685	4,696	169	..	..	5,550
<i>Total, electricity, etc.</i>	258,281	55,255	43,713	1,478	3,119	..	361,846
Railways, tramways and omnibuses—							
Working expenses	..	..	8,311	..	..	..	8,311
Debt charges	..	..	1,489	..	..	..	1,489
Other (including transfers to general revenue and construction)	..	..	2,779	..	..	..	2,779
<i>Total, railways, etc.</i>	..	..	12,579	..	..	..	12,579
Other—	(g)	(h)	(i)	(j)	(k)	(l)	
Working expenses	14,831	1,517	839	635	424	435	18,682
Depreciation	179	103	..	1	..	..	282
Debt charges	1,374	96	116	..	..	180	1,767
Other (including transfers to general revenue and construction)	..	256	3,534	4	..	..	3,794
<i>Total, other</i>	16,385	1,971	4,490	640	424	615	24,524
Grand total	292,501	57,963	80,837	2,120	3,960	8,014	445,594

(a) Year ended 31 December 1968. (b) Year ended 30 September 1969. (c) Year ended 30 June 1969. (d) Year ended 30 June 1968. (e) Includes Sewerage and Cleansing Rates. (f) Includes Government grant: water supply and sewerage, \$5,494,000; electricity and gas, \$2,671,000; for part of cost of new works borne by Government. (g) Abattoirs. (h) Abattoirs, hydraulic power undertakings, quarries, iceworks, and reinforced concrete pipe and culvert works. (i) Off-street car parking, municipal markets, hostels, hotels and cinemas. (j) Quarries and hospitals. (k) Quarries, canteens and abattoirs. (l) Abattoirs. (m) Net balance after deducting charge for debt redemptions. The full amount of charge for debt redemption is included under debt charges.

**LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS—REVENUE
AND EXPENDITURE, STATES, 1964-65 TO 1968-69**
(\$'000)

Year	N.S.W.(a)	Vic.(b)	Qld(c)	S.A.(c)	W.A.(c)	Tas.(c)	Total
Revenue(d)—							
1964-65	226,234	45,352	58,500	1,621	2,364	5,320	339,392
1965-66	241,348	47,604	64,035	1,852	2,825	5,578	363,242
1966-67	261,107	50,884	69,341	2,174	3,295	6,226	393,026
1967-68	285,010	55,251	74,740	2,009	3,820	6,759	427,590
1968-69	312,645	58,262	77,237	(e)	3,920	8,227	(e)
Expenditure(d)—							
1964-65	210,052	45,117	54,816	1,682	2,318	4,898	318,883
1965-66	226,466	47,962	61,193	1,806	2,773	5,500	345,700
1966-67	246,238	50,963	64,950	2,297	3,227	5,856	373,532
1967-68	267,938	54,739	68,898	2,120	3,638	6,596	403,929
1968-69	292,501	57,963	80,837	(e)	3,960	8,014	(e)

(a) Years ended previous 31 December. (b) Years ended 30 September. (c) Years ended 30 June. (d) Excludes loan receipts or expenditure. (e) Not yet available.

Loan expenditure. The tables following show particulars of loan expenditure on works connected with the ordinary services and the business undertakings of local government authorities.

**LOCAL GOVERNMENT AUTHORITIES: LOAN EXPENDITURE, STATES
1968-69**
(\$'000)

	N.S.W.(a)	Vic.(b)	Qld(c)	S.A.(d)	W.A.(c)	Tas.(c)	Total
Ordinary services—							
Roads, bridges, streets, foot-paths, drainage, and sewerage	12,911	10,925	32,871	4,774	2,818	2,411	66,709
Council properties	(e)9,640	(e)14,362	(e)2,587	1,843	4,940	(e)1,636	35,008
Parks, gardens, and recreational reserves	2,998	2,752	4,579	588	2,672	511	14,099
Other	(f)3,793	397	1,267	124	530	232	6,343
<i>Total, ordinary services</i>	29,341	28,436	41,303	7,330	10,960	4,789	122,159
Business undertakings—							
Water supply	8,431	314	13,623	..	..	1,225	23,659
Sewerage	6,082	..	..	..	66	2,601	8,683
Electricity and gas	32,247	2,975	3,879	137	976	..	40,214
Railways, tramways and omnibuses . . . . .	..	..	1,715	..	..	..	1,715
Abattoirs	1,489	36	..	..	..	..	1,525
Other . . . . .	..	7	360	..	..	..	367
<i>Total, business undertakings</i>	48,248	3,332	19,576	137	1,042	3,827	76,163
Grand total	77,589	31,768	60,879	7,467	12,002	8,616	198,321

(a) Year ended 31 December 1968. (b) Year ended 30 September 1969. Figures include transactions of Private Street Accounts. (c) Year ended 30 June 1969. (d) Year ended 30 June 1968. (e) Includes plant. (f) Includes advances for homes.

**LOCAL GOVERNMENT AUTHORITIES: LOAN EXPENDITURE
STATES, 1964-65 TO 1968-69
(\$'000)**

Year	N.S.W.(a)	Vic.(b)	Qld(c)	S.A.(c)	W.A.(c)	Tas.(c)	Total
Ordinary services—							
1964-65 .	25,645	22,052	30,900	5,692	5,849	3,453	93,590
1965-66 .	25,817	24,280	30,959	6,219	7,143	3,655	98,073
1966-67 .	26,081	25,417	31,757	9,400	7,884	3,890	104,430
1967-68 .	26,161	26,792	33,871	7,330	8,603	4,432	107,189
1968-69 .	29,341	28,436	41,303	(d)	10,960	4,789	(d)
Business undertakings—							
1964-65 .	36,697	3,508	15,042	22	977	2,900	59,146
1965-66 .	41,711	3,570	16,365	20	903	4,687	67,256
1966-67 .	35,320	4,013	18,359	60	765	4,201	62,718
1967-68 .	49,865	3,940	19,526	137	1,205	4,932	79,605
1968-69 .	48,248	3,332	19,576	(d)	1,042	3,827	(d)

(a) Years ended previous 31 December. (b) Years ended 30 September. Figures for Victoria now include transactions of Private Street Accounts. (c) Years ended 30 June. (d) Not yet available.

Local government and semi-government authorities' debt

Statistics of local government and semi-government debt for 1964-65 to 1968-69 are given in the following paragraphs. The information covers all local government authorities (including New South Wales County Councils) and those semi-government authorities responsible for the provision of the following services.

New South Wales. Water Supply, Sewerage and Drainage, Electricity and Gas Supply, Fire Brigades, Banking, Housing, Harbours, Grain Elevators, Roads and Bridges, Marketing, Industry Assistance, and Miscellaneous.

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

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

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

Western Australia. Water Supply and Sewerage, Harbours, Transport, Electricity Supply, Fire Brigades, Hospitals, Marketing (Agency), Housing, University, and Miscellaneous.

Tasmania. Harbours, Electricity Supply, Fire Brigades, Transport, Housing, Industry Assistance and Water Supply.

The following table provides a summary of new money loan raisings, provisions for debt redemption, debt outstanding and interest payable by local government and semi-government authorities for the year 1968-69.

LOCAL GOVERNMENT AND SEMI-GOVERNMENT AUTHORITIES: NEW MONEY
LOAN RAISINGS, REDEMPTION, DEBT, AND INTEREST PAYABLE, STATES
1968-69
(\$'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
LOCAL GOVERNMENT AUTHORITIES							
New money loan raisings—							
From government	481	340	7,267	470	..	35	8,593
From public	79,776	28,515	47,424	7,455	13,531	7,599	184,299
<i>Total loan raisings</i>	<i>80,257</i>	<i>28,855</i>	<i>54,691</i>	<i>7,925</i>	<i>13,531</i>	<i>7,633</i>	<i>192,893</i>
Funds provided for redemption—							
Government loans	672	177	1,752	905	2	33	3,541
Loans due to public	34,908	14,939	18,999	2,068	5,231	2,595	78,741
<i>Total funds, redemptions</i>	<i>35,580</i>	<i>15,117</i>	<i>20,751</i>	<i>2,973</i>	<i>5,233</i>	<i>2,628</i>	<i>82,283</i>
Accumulated sinking fund balance	41,951	15,092	32,559	179	..	1,600	91,382
Debt—							
Due to government	7,059	7,675	42,386	6,956	23	917	65,017
Due to banks (net overdraft)	3,490	974	..	155	131	..	4,750
Due to public creditor(a)	667,982	214,667	379,742	47,324	66,556	63,280	1 439,551
<i>Total debt(a)</i>	<i>678,532</i>	<i>223,317</i>	<i>422,128</i>	<i>54,435</i>	<i>66,710</i>	<i>64,197</i>	<i>1,509,318</i>
Maturing overseas(a)(b) . . . . .	..	..	3,200	..	..	..	3,200
Annual interest payable(a)	35,913	12,356	23,202	2,961	3,743	3,573	81,749
SEMI-GOVERNMENT AND OTHER PUBLIC AUTHORITIES							
New money loan raisings—							
From government	32,605	55,236	3,731	39,547	22,140	26,975	180,223
From public	73,200	124,269	39,334	30,314	16,668	9,770	293,555
<i>Total loan raisings</i>	<i>105,805</i>	<i>179,505</i>	<i>43,065</i>	<i>69,861</i>	<i>38,808</i>	<i>36,745</i>	<i>473,788</i>
Funds provided for redemption—							
Government loans	9,242	7,772	1,554	4,610	2,088	3,084	28,350
Loans due to public	17,721	31,429	12,003	418	2,699	1,972	66,243
<i>Total funds, redemptions</i>	<i>26,963</i>	<i>39,201</i>	<i>13,557</i>	<i>5,028</i>	<i>4,787</i>	<i>5,056</i>	<i>94,593</i>
Accumulated sinking fund balance	123,251	58,116	22,310	(c)62	6,150	4,967	214,857
Debt—							
Due to government	589,163	767,229	58,313	452,424	278,267	337,100	2,482,497
Due to banks (net overdraft)	3,569	541	..	151	5,124	..	9,385
Due to public creditor(a)	745,957	1,664,001	348,686	182,175	120,514	72,521	3,132,302
<i>Total debt(a)</i>	<i>1,338,689</i>	<i>2,431,772</i>	<i>406,999</i>	<i>634,750</i>	<i>403,905</i>	<i>409,621</i>	<i>5,625,737</i>
Maturing overseas(a)(b) . . . . .	..	1,551	..	..	..	..	1,551
Annual interest payable(a)	71,537	122,428	22,025	30,943	18,907	20,407	286,248

(a) Includes debt or interest payable in London and New York. Debt in London is payable in £ sterling which have been converted at the I.M.F. rate of £\$1 to \$A2.1428; New York debt is payable in U.S. dollars which have been converted at the I.M.F. rate of \$US1.12 to \$A1. (b) Included in debt figures above. (c) In 1968-69 the State Bank Redemption Fund was transferred to the Bank Reserve Fund.

NOTE. In Official Year Books prior to No. 54 (1968) New South Wales County Councils were included in the semi-government division.

In the table above and the following table debt includes all liabilities for which arrangements have been made for repayment over a period of one year or more, and net overdrafts. Interest capitalised 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 capitalised), 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 capitalised. 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.

**LOCAL GOVERNMENT AND SEMI-GOVERNMENT AUTHORITIES: NEW MONEY
LOAN RAISINGS, REDEMPTION AND DEBT, AUSTRALIA, 1964-65 TO 1968-69
(\$'000)**

	1964-65	1965-66	1966-67	1967-68	1968-69
LOCAL GOVERNMENT AUTHORITIES					
New money loan raisings—					
From government	3,945	6,412	5,235	5,616	8,593
From public	136,762	136,148	157,610	178,424	184,299
<i>Total loan raisings</i>	<i>140,708</i>	<i>142,560</i>	<i>162,845</i>	<i>184,040</i>	<i>192,893</i>
Funds provided for redemption—					
Government loans	4,278	4,281	3,919	3,717	3,541
Loans due to public	56,186	59,033	66,437	71,738	78,741
<i>Total funds, redemptions</i>	<i>60,464</i>	<i>63,314</i>	<i>70,355</i>	<i>75,455</i>	<i>82,283</i>
Accumulated sinking fund balance	59,496	65,226	73,753	81,179	91,382
Debt—					
Due to government	55,301	57,342	58,339	60,171	65,017
Due to banks (net overdraft)	4,245	7,090	9,226	4,335	4,750
Due to public creditor(a)	1,031,619	1,114,762	1,211,401	1,324,816	1,439,551
<i>Total debt(a)</i>	<i>1,091,166</i>	<i>1,179,194</i>	<i>1,278,967</i>	<i>1,389,323</i>	<i>1,509,318</i>
Maturing overseas(a)(b)	10,043	9,686	4,329	3,557	3,200
SEMI-GOVERNMENT AND OTHER PUBLIC AUTHORITIES					
New money loan raisings—					
From government	142,131	142,445	143,074	164,315	180,223
From public	197,872	194,588	221,064	246,164	293,555
<i>Total loan raisings</i>	<i>340,003</i>	<i>337,034</i>	<i>364,138</i>	<i>410,479</i>	<i>473,788</i>
Funds provided for redemption—					
Government loans	20,904	23,995	25,459	28,112	28,350
Loans due to public	40,006	42,395	43,082	63,042	66,243
<i>Total funds, redemptions</i>	<i>60,910</i>	<i>66,389</i>	<i>68,541</i>	<i>91,154</i>	<i>94,593</i>
Accumulated sinking fund balance	141,926	159,463	177,944	195,363	214,857
Debt—					
Due to government	1,955,426	2,083,267	2,198,078	2,330,275	2,482,497
Due to banks (net overdraft)	1,125	652	7,462	7,029	9,385
Due to public creditor(a)	2,311,699	2,481,444	2,680,589	2,880,936	3,132,302
<i>Total debt(a)</i>	<i>4,268,250</i>	<i>4,565,363</i>	<i>4,886,130</i>	<i>5,218,239</i>	<i>5,625,737</i>
Maturing overseas(a)(b)	14,718	12,858	11,810	5,837	1,551

(a) See footnote (a) page 599. (b) Included in debt figures above.

Roads and bridges

Summary of roads open for general traffic

Tables showing road lengths in the several States and Territories classified according to class of road and surface of road may be found in Chapter 12, Transport, Communication, and Travel.

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 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 later 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, if included in an aggregate, would duplicate expenditure; this together with the fact that some authorities are unable to supply separate information concerning their road expenditure, makes 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 the three classes of authorities mentioned above on roads and bridges in Australia during each of the years ended 30 June 1966 to 1970. Expenditure on roads by those authorities whose primary activity is directed towards functions other than roads, e.g. electricity, forestry, housing, etc., authorities, is not included. The figures cover expenditure 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
STATES AND TERRITORIES, 1965-66 TO 1969-70**
(\$ million)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. and A.C.T.(a)	Aust.
1965-66 . . .	159	121	72	41	39	21	13	465
1966-67 . . .	168	129	79	47	47	19	13	502
1967-68 . . .	(b)172	143	89	47	48	19	18	(b)536
1968-69(b) . .	184	163	92	49	48	19	23	578
1969-70(b) . .	197	182	101	59	53	18	23	633

(a) In each of the years 1965-66 to 1969-70 Commonwealth expenditure on roads other than in the Northern Territory and Australian Capital Territory was approximately \$300,000. (b) Estimated.

Commonwealth Government grants

The following table shows the allocations 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 1965-66 to 1969-70. After 1 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 18, Public Finance, and Finance bulletins.

**ROAD CONSTRUCTION, MAINTENANCE, ETC.: GRANTS UNDER THE
COMMONWEALTH AID ROADS ACTS, STATES, 1965-66 TO 1969-70**
(\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
1965-66 . . .	39,191	27,508	25,538	16,024	24,739	7,000	140,000
1966-67 . . .	41,744	29,443	27,415	17,222	26,676	7,500	150,000
1967-68 . . .	44,467	31,286	29,266	18,384	28,597	8,000	160,000
1968-69 . . .	47,319	33,113	31,098	19,433	30,537	8,500	170,000
1969-70 . . .	57,060	38,160	34,740	21,000	32,940	9,100	193,000

New South Wales

Main roads administration is organised as a separate department under the control of a Commissioner. The activities of the Department of Main Roads include works on main, secondary, developmental and tourist roads throughout the State, all roads in the unincorporated portion of the Western Division, and certain associated works, principally bridges and vehicular ferries, constructed and maintained 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.

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 main road and bridge construction, half the cost of secondary roads, and a proportion (in general, up to half) of the cost of tourist roads are met from the

funds of the Department of Main Roads. The Councils do not contribute directly to the cost of these works but are required to pay a levy of 0.2083 cents in the \$ on the unimproved capital value of rateable property within Council's area or at a uniform percentage determined annually by the Commissioner of between ten per cent and fifteen per cent of Council's total rate income, whichever is the less. In the former case the rate payable in respect of lands used principally for primary production is 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 construction works and three-quarters of the cost of road construction and road and bridge maintenance works on trunk roads, three-quarters of the cost of bridge construction works and two-thirds of the cost of road construction and road and bridge maintenance works on ordinary main roads, and, in most cases, up to half the cost of works on tourist 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 funds of the Department of Main Roads are derived principally from motor vehicle taxation, charges on heavy commercial goods vehicles under the Road Maintenance (Contribution) Act, 1958-1969, grants under Commonwealth Aid Roads Acts (see page 601 and the Chapter, Public Finance), other grants from the State or Commonwealth Governments, and proceeds of a levy on municipal and shire councils in the County of Cumberland in accordance with the Main Roads Act, 1924. The State Government also makes repayable advances for Main Roads Department works, and since 1963 the Commissioner for Main Roads has had the power (with the approval of the Governor on the recommendation of the Treasurer) to borrow moneys. The figures shown below 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.

**DEPARTMENT OF MAIN ROADS, NEW SOUTH WALES: REVENUE
AND EXPENDITURE, 1965-66 TO 1969-70**
(\$'000)

	1965-66	1966-67	1967-68	1968-69	1969-70
REVENUE(a)					
Motor vehicle taxation, registration and licence fees	42,471	42,897	45,248	49,636	52,519
Commonwealth Aid Roads Acts	24,648	26,313	28,013	29,814	40,207
State and Commonwealth grants	35	63	..	..	..
Contributions by other departments and bodies	377	893	516	350	1,194
Local authorities' contributions—					
Under section 11 of Main Roads Act	6,418	7,600	8,241	7,538	9,820
Other	157	250	385	262	30
Sydney-Newcastle Expressway Toll	356	706	892	1,530	2,096
Other	539	564	652	859	776
Total	75,001	79,286	83,947	89,989	106,642
EXPENDITURE(b)					
Roads and bridges—					
Construction	61,714	62,590	64,534	67,950	79,999
Maintenance	15,813	17,677	17,352	19,719	22,114
Administration	3,757	4,296	4,816	5,379	6,133
Interest, exchange, etc., on debt	1,609	1,856	2,094	2,541	3,126
Other(c)	1,467	1,753	1,705	2,229	3,185
Total	84,360	88,172	90,501	97,819	114,555

(a) Excludes repayable advances by the State Government and private loans (\$5,005,000 in 1965-66, \$6,500,000 in 1966-67, \$8,750,000 in 1967-68, \$12,900,000 in 1968-69 and \$10,600,000 in 1969-70), and transfers from Sydney Harbour Bridge Account for Expressway construction (\$4,750,000 in 1965-66, \$3,743,000 in 1966-67, \$4,775,000 in 1967-68, \$900,000 in 1968-69, and \$224,000 in 1969-70). Expenditure from these amounts is fully reflected in Expenditure. (b) Excludes debt redemption (\$441,000 in 1965-66, \$346,000 in 1966-67, \$477,000 in 1967-68, \$812,000 in 1968-69 and \$984,000 in 1969-70) and repayment of government advances (\$200,000 in 1965-66 and later years). (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'.

Toll facilities operated by the Department of Main Roads include the Sydney Harbour Bridge and completed sections of the Sydney-Newcastle Expressway.

The Sydney Harbour Bridge was opened for traffic on 19 March 1932, and has a main span of 1,650 feet with clearance for shipping of 170 feet. The deck, 160 feet wide, carries eight road traffic lanes, two railway tracks and two footways. During 1969-70, 45,415,518 road vehicles (excluding buses and exempt vehicles), 26,228,422 rail passengers and 12,033,025 bus passengers crossed the bridge. Income from tolls during 1969-70 amounted to \$4,866,000, including road tolls \$4,549,000, rail passenger tolls \$290,000 and bus passenger tolls \$27,000.

The sections of the Sydney-Newcastle Expressway now open to traffic extend approximately six miles between Berowra and the Hawkesbury River and approximately ten miles north of the river to Calga. The Department is currently constructing a bridge on the Hawkesbury River to link these two sections of the Expressway. Total cost of the project to 30 June 1970 was \$29.4 million. Toll collections during the year ended 30 June 1970 amounted to \$2,096,149.

Victoria

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 which roads should be declared in the various classifications; to supervise the construction, reconstruction and maintenance of these roads; 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 communications or to improve the conditions of traffic.

The funds of the Country Roads Board are derived principally from motor registration fees, two-thirds of additional registration fees (charged on initial registration or transfer), a proportion of drivers' licence fees, payments by the Commonwealth Government under the Commonwealth Aid Roads Acts, roads charges under the Commercial Goods Vehicles Act, repayments by municipalities and, since 1965, a share of the addition to registration fees paid to the Roads (Special Projects) Fund and a grant under the Public Works Loan Application Act. In addition, loans have been authorised 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. Finance for the elimination of level crossings and for improved approaches, signs, lighting and other work to reduce danger at level crossings is derived mainly from the one third of additional registration fees paid into the Level Crossings Fund, maintained by the Board.

COUNTRY ROADS BOARD, VICTORIA: RECEIPTS AND PAYMENTS
1965-66 TO 1969-70
(\$'000)

	1965-66	1966-67	1967-68	1968-69	1969-70
RECEIPTS					
Motor Car Act—registration and licence fees (less cost of collection)	24,690	25,871	26,805	28,889	30,868
Municipalities' payments	1,691	1,824	1,845	1,931	1,904
Commonwealth Aid Roads Acts	27,175	29,050	30,895	32,723	38,160
Roads (Special Projects) Fund	1,654	3,311	2,652	3,055	3,533
Loans from State Government	1,020	834	987	3,389	900
Road charges, Commercial Goods Vehicles Act	6,379	6,732	7,248	7,842	8,555
Public Works Loan Application Act	768	715	700	784	849
Other	971	459	380	520	498
Total	64,348	68,796	71,513	79,132	85,267

COUNTRY ROADS BOARD, VICTORIA: RECEIPTS AND PAYMENTS
1965-66 TO 1969-70—*continued*
(\$'000)

	1965-66	1966-67	1967-68	1968-69	1969-70
PAYMENTS					
Construction and maintenance of roads and bridges—					
State highways	17,704	19,674	19,003	18,349	22,078
Main roads	16,569	16,765	16,769	16,940	17,783
By-pass roads	3,745	5,172	7,969	11,682	13,439
Tourist roads	1,510	2,312	2,857	2,793	3,112
Forest roads	699	737	658	678	798
Unclassified roads	12,709	12,798	13,739	14,248	16,356
Other	140	45	82	86	112
Plant purchase	1,149	1,388	1,234	1,583	1,818
Interest, debt redemption, etc.	2,056	2,140	2,190	2,306	2,443
Office buildings, Kew—capital cost	12	31	8	59	49
Statutory payment to—					
Tourists' Resorts Fund	468	494	517	536	578
Transport Regulation Board	178	383	404	435	471
Administration and other	6,339	5,637	7,011	7,756	8,078
Total	63,278	67,575	72,443	77,452	87,115

The Melbourne and Metropolitan Board of Works bears the responsibility for carrying-out planning scheme proposals relating to metropolitan highways and bridges, and is now carrying out a programme of urgent highway works throughout the metropolitan area of Melbourne. The extension of the South-Eastern Freeway from Burnley to Tooronga and the Tullamarine Freeway to serve the new Tullamarine airport have now been completed. Expenditure on road projects up to 30 June 1970 was \$49.2m. Of this amount, \$18.6m was financed from the proceeds of the Board's Metropolitan Improvement Rate and \$30.6m was contributed by the Treasurer of Victoria from the Roads (Special Projects) Fund.

The Lower Yarra Crossing Authority was incorporated in October 1965 as a company limited by guarantee and given powers under the *Lower Yarra Crossing Authority Act 1965* to construct, operate and maintain a toll crossing over the lower reaches of the River Yarra. For details of financial and engineering arrangements prior to the disaster of 15 October 1970 see Official Year Book No. 56 1970, page 610 and see also the chronological table.

Queensland

The Department of Main Roads was constituted 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, and secondary roads; 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.

The funds of the Department of Main Roads are obtained chiefly from motor vehicle registration and collection, 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 during each of the years 1964-65 to 1968-69 are shown in the following table.

DEPARTMENT OF MAIN ROADS, QUEENSLAND: RECEIPTS AND PAYMENTS
1964-65 TO 1968-69
 (\$'000)

	1964-65	1965-66	1966-67	1967-68	1968-69
RECEIPTS					
Motor vehicle registration, Transport Acts collections, fees, etc.	15,531	15,704	18,645	20,664	22,048
Loans from State Government	1,039	1,330	1,127	672	2,330
Grants from State Government . . . . .	..	586	1,785	2,420	746
Roads (Contribution to Maintenance) Act	3,027	3,142	3,592	3,918	4,297
Commonwealth Aid Roads and Works Act	27,919	29,188	31,707	33,075	35,296
Maintenance repayments—local authorities	1,125	1,125	1,192	1,400	1,471
Hire, rent, sales of plant, etc.	3,704	3,449	3,898	3,908	5,852
Other	2,043	2,066	2,755	2,895	1,040
Total	54,388	56,590	64,701	68,952	73,080
PAYMENTS					
Permanent road works and surveys(a)	39,993	35,356	40,141	41,931	46,798
Maintenance of roads	6,466	6,876	8,310	9,095	8,929
Plant, machinery, buildings, etc. (including plant maintenance)	3,735	4,418	3,716	4,407	4,060
Loans—					
Interest	203	276	301	338	276
Redemption	697	432	396	954	934
Administration and other	5,618	7,104	9,000	10,706	10,292
Total	56,712	54,462	61,864	67,431	71,289

(a) Includes grants to local authorities for road purposes.

South Australia

The Highways Department is administered by the Commissioner of Highways, who is empowered, subject to the approval of the Minister of Roads and Transport, to undertake the construction, maintenance and protection of the principal roads of the State, allocate grants to councils for road-works and supervise the expenditure of these grants, and 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. Funds of the Department are derived mainly from 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, and from contributions under the Commonwealth Aid Roads Acts.

The following table shows particulars of receipts and payments, during the years 1965-66 to 1969-70, of funds controlled by the Highways Department.

HIGHWAYS DEPARTMENT, SOUTH AUSTRALIA
RECEIPTS AND PAYMENTS, 1965-66 TO 1969-70
(\$'000)

	1965-66	1966-67	1967-68	1968-69	1969-70
RECEIPTS					
Motor vehicles registration, licences, fees	11,206	11,506	11,858	12,536	13,250
Commonwealth Aid Roads Acts	16,024	17,223	18,384	19,433	21,000
Other(a)	3,340	3,496	3,693	3,799	5,161
Total	30,570	32,225	33,934	35,767	39,412
PAYMENTS					
Construction and reconstruction of roads and bridges(b)	20,912	22,834	20,799	23,837	30,200
Maintenance(a)(b)	5,375	6,000	7,128	8,211	10,271
Recoups to Consolidated Revenue Fund—interest, debt redemption and exchange	1,167	514	518	522	544
Advances to local and semi-governmental authorities	1,376	1,091	1,386	1,253	402
Repayments to Revenue under Section 31 (a), Highways Act . . . . .	..	1,000	240	..	..
Stores, plant, machinery, suspense accounts, etc.(c)	1,214	1,792	2,866	-105	581
Total	30,044	33,231	32,936	33,718	41,998

(a) Includes reimbursement works for Commonwealth Government. (b) Includes administration expenses.
(c) Represents gross repayments less recoveries by charges to works on account of depreciation and materials used.

Western Australia

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. The Department operates under the *Main Roads Act, 1930-1969*, and is administered by a Commissioner of Main Roads responsible to the Minister for Works. The Act makes provision for the construction and maintenance of 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. 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.

The funds of the Main Roads Department are derived principally from allocations made under the *Commonwealth Aid Roads Act 1969* under which Western Australia has been allotted grants totalling \$200,400,000 for the five-year period commencing 1 July 1969. In the seven-year period to 30 June 1974 grants totalling a maximum of \$9,500,000 are to be received from the Commonwealth for the improvement of roads used for the transport of beef cattle in the Kimberley District, including \$1.4 million, \$1,451,000 and \$1,168,000 in the years 1967-68 to 1969-70 respectively. Other sources of income include a portion of vehicle licence fees collected by local government authorities and the Commissioner of Police, overload permit fees and an allocation from drivers' licence fees. Further moneys for expenditure on road maintenance are available under the *Road Maintenance (Contribution) Act 1965* administered by the Commissioner of Transport. Since 1 July 1969 the Main Roads Department, through changes to legislation, has administered funds not previously included in receipts and payments of the Department. Receipts and payments for the years 1965-66 to 1969-70 are shown in the following table.

MAIN ROADS DEPARTMENT, WESTERN AUSTRALIA: RECEIPTS AND
PAYMENTS, 1965-66 TO 1969-70(a)
(\$'000)

	1965-66	1966-67	1967-68	1968-69	1969-70
RECEIPTS					
Motor vehicle registration, licence fees, etc.—					
Police Department	4,054	3,820	3,868	4,435	7,958
Local Authorities . . . . .	..	..	..	..	3,367
Commonwealth Aid Roads Acts	22,618	23,475	24,307	25,148	32,940
Commonwealth Aid Roads Acts—matching grants	463	763	1,202	2,040	..
Western Australia Grant (Beef Cattle Roads) Act	1,500	1,500	..	..	..
State Grants (Beef Cattle Roads) Act . . . . .	..	..	1,400	1,451	1,168
Road Maintenance (Contribution) Act . . . . .	..	2,619	3,100	3,086	3,557
Recoups from other authorities	917	1,821	1,469	2,488	2,433
Other	(b)2,024	176	272	299	307
Total	31,576	34,173	35,618	38,946	51,730
PAYMENTS					
Construction and reconstruction of roads and bridges(e)	21,012	26,009	24,846	27,456	28,921
Maintenance of roads and bridges(c)	1,856	3,010	3,294	4,452	4,820
Recoups to local authorities(d)	3,501	3,518	4,307	..	..
Grants to local authorities . . . . .	..	..	..	..	10,997
Transfer to State Consolidated Revenue	253	258	258	258	267
Plant, machinery, etc.	1,709	1,789	2,046	516	950
Other(c)	1,861	1,678	1,642	3,760	3,809
Total	30,192	36,262	36,393	36,442	49,764

(a) Figures for years 1965-66 to 1969-70 have been revised to reflect accounting changes introduced 1 July 1969.
(b) Includes \$1,896,000 transferred from an Overhaul Account previously administered by the Public Works Department.
(c) Includes administration and expenditure on hire and maintenance of road construction plant, etc., and on purchase of materials.
(d) Consists of payments to local authorities for work carried out on behalf of the Main Roads Department. From 1968-69 these payments have been included in 'Construction and reconstruction of roads and bridges' and 'Maintenance of roads and bridges'.

Tasmania

Under the *Roads and Jetties Act 1935*, the control of the construction and maintenance of roads and certain road making plant was vested in the Minister for Lands and Works. Works authorised by the Minister in respect of roads classified as State highways, main roads, secondary roads and tourist and developmental roads are constructed by the Department of Public Works and financed from the State Highways Trust Fund, into which are paid Commonwealth Aid Roads grants, motor vehicle taxes and public vehicle fees. Loan funds are also authorised by Parliament for road purposes. Municipal councils contribute towards the cost of maintaining main and secondary roads in the classified system. The maintenance of roads not included in the classified system is the responsibility of municipal councils, but they are assisted with grants made available under the Commonwealth Aid Roads Act for expenditure on Rural Roads.

The table following shows particulars of the receipts and payments of the combined Road Funds for the years 1965-66 to 1969-70 (municipal council receipts from rates and loans for road purposes are excluded).

ROAD FUNDS, TASMANIA: RECEIPTS AND PAYMENTS, 1965-66 TO 1969-70
(\\$'000)

	1965-66	1966-67	1967-68	1968-69	1969-70
RECEIPTS					
Motor vehicle taxation and registration, licences, fees, fines, etc.	3,425	3,961	4,396	4,587	4,827
Commonwealth Aid Roads and Works Acts	7,000	7,500	8,000	8,500	9,100
Recoups from local authorities, etc.	18	38	32	70	18
State Loan Fund	4,446	1,693	1,188	739	1,100
Hire of plant and workshop charges	3,732	3,824	4,170	4,129	4,410
Other	220	262	565	304	342
Total	18,842	17,279	18,350	18,329	19,796
PAYMENTS					
Construction and reconstruction of roads and bridges	11,591	9,445	10,214	9,434	10,908
Maintenance of roads and bridges	3,141	3,167	3,436	3,540	3,806
Other works connected with transport	62	45	48	73	..
Special Grants to local authorities ^(a)	35	37	46	54	58
Purchase, maintenance and operation of plant	3,751	3,884	4,276	4,392	4,400
Planning and research . . . . .	..	..	..	..	120
Other	300	759	346	339	101
Total	18,881	17,337	18,367	17,833	19,393

(a) The main grants to local authorities are included in other payments items, principally for maintenance work.

Water supply, sewerage and drainage

The information in this section relates primarily to the metropolitan areas and provincial cities and towns. For information on water supply and irrigation in rural areas see Chapter 24, Water Conservation and Irrigation.

New South Wales

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, Shellharbour and Kiama, and (b) the Hunter District Water Board serving the Newcastle-Maitland-Cessnock areas. At Broken Hill and Cobar similar boards include representatives 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.

Metropolitan and Hunter District water supply. The storage reservoirs of the metropolitan water supply system with a combined available capacity of 574,335 million gallons, drain catchment areas of 3,890 square miles (including Warragamba, 3,480 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 274 million gallons a day. At 30 June 1970 there were 183 service reservoirs in use with a combined capacity of 725 million gallons. Fluoridation of the metropolitan water supply commenced in April 1968.

The water supply of the *Hunter District system* is drawn principally from three sources; the Chichester Reservoir, with a storage capacity of about 3,902 million gallons and draining a catchment of 76 square miles, the Tomago Sandbeds, which extend northerly along the coast towards Port Stephens, and the Grahamstown Water Supply Scheme which is still being developed. Another source of supply is provided by the Nelson Bay-Anna Bay Scheme. Service reservoirs and tanks distributed throughout the water supply district have a total storage capacity of 126 million gallons.

The following tables show, for the Metropolitan and Hunter District systems, the number of properties, the estimated population supplied, and other details.

METROPOLITAN WATER SUPPLY(a), NEW SOUTH WALES: SERVICES, 1965-66 TO 1969-70

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		
		'000	mil. gal	mil. gal	gallons	gallons	miles	
1965-66	712,059	2,723	230	83,802	323	84	7,972	495,850
1966-67	735,360	2,756	234	85,383	318	85	8,105	515,653
1967-68	756,063	2,816	270	98,981	357	96	8,325	532,859
1968-69	775,548	2,885	302	110,347	389	106	8,534	550,017
1969-70	795,918	2,968	285	104,017	358	97	8,805	583,818

(a) County of Cumberland, City of Greater Wollongong, Shellharbour and Kiama Municipalities, and parts of Colo and Wollondilly Shires.

HUNTER DISTRICT WATER SUPPLY(a): SERVICES, 1965-66 TO 1969-70

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	
			mil. gal	mil. gal	gallons	gallons	miles
1965-66	94,779	320,451	32.8	11,970	346	102	1,673
1966-67	96,755	327,514	31.6	11,521	326	96	1,702
1967-68	99,066	335,565	37.4	13,675	377	111	1,740
1968-69	100,941	342,167	42.5	15,513	421	124	1,786
1969-70	103,308	350,783	40.9	14,918	396	115	1,850

(a) Newcastle, Maitland and Cessnock areas.

Metropolitan and Hunter District sewerage and drainage systems. The metropolitan sewerage and drainage system serving Sydney and suburbs comprises 4 major sewerage systems and 8 minor systems, consisting of 7 outfalls discharging directly into the Pacific Ocean and 5 treatment works. There are also 8 centres outside the metropolitan area of which 5 (Camden, Campbelltown, St Mary's, Richmond and Warragamba township) are served by local treatment works and 3 (Bellambi, Port Kembla and Wollongong) discharge directly into the Pacific Ocean. Stormwater drainage channels under the control of the Metropolitan Water, Sewerage and Drainage Board at 30 June 1970 were 186 miles long.

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

The following table gives details of sewerage services and stormwater drains of the Metropolitan system.

**METROPOLITAN SEWERAGE AND DRAINAGE^(a)
NEW SOUTH WALES: SERVICES, 1966 TO 1970**

30 June—	Improved properties for which sewerage available	Estimated population served	Length of sewers	Length of stormwater channels
		'000	miles	miles
1966 . . .	524,225	2,000	5,585	181
1967 . . .	547,630	2,052	5,881	182
1968 . . .	574,847	2,135	6,166	184
1969 . . .	602,312	2,235	6,504	186
1970 . . .	637,258	2,374	6,804	190

^(a) County of Cumberland, City of Greater Wollongong, Shellharbour and Kiama Municipalities, and parts of Colo and Wollondilly Shires.

At 30 June 1970, 83,806 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 1,133 miles, and the length of drains was 52 miles.

Metropolitan and Hunter District systems' finances. 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 1969-70, and for the three services combined for the years 1965-66 to 1969-70.

**METROPOLITAN AND HUNTER DISTRICT WATER SUPPLY, SEWERAGE
AND DRAINAGE, NEW SOUTH WALES: FINANCES, 1965-66 TO 1969-70
(\$'000)**

Year	Capital debt at 30 June	Revenue	Expenditure			Total	Surplus (+) or deficit (-)
			Working expenses (a)	Interest and exchange	Debt redemption		
METROPOLITAN^(b)							
1969-70—							
Water . . .	338,945	47,058	24,749	16,428	5,874	47,051	+ 7
Sewerage . . .	274,266	38,991	20,943	13,070	4,973	38,986	+ 5
Drainage . . .	14,263	2,294	1,420	714	157	2,291	+ 3
Total, 1969-70	627,475	88,343	47,112	30,213	11,004	88,328	+ 15
1968-69 . . .	590,869	80,206	41,865	28,216	10,105	80,185	+ 21
1967-68 . . .	550,793	68,917	31,765	26,389	10,754	68,908	+ 9
1966-67 . . .	513,816	62,701	28,914	24,132	9,635	62,681	+ 20
1965-66 . . .	475,200	58,092	27,169	22,166	8,743	58,078	+ 14
HUNTER DISTRICT^(c)							
1969-70—							
Water . . .	67,457	7,061	3,023	3,432	715	7,169	-109
Sewerage . . .	22,790	3,288	2,000	1,131	285	3,416	-128
Drainage . . .	1,167	164	128	54	9	191	- 27
Total, 1969-70	(d)94,909	10,513	5,152	4,616	1,008	10,776	-263
1968-69 . . .	(d)89,835	9,621	4,722	3,973	925	9,620	+ 2
1967-68 . . .	(d)84,698	8,651	4,106	3,740	843	8,688	- 38
1966-67 . . .	(d)79,497	7,928	3,786	3,254	765	7,805	+122
1965-66 . . .	(d)74,593	7,804	3,469	3,442	861	7,772	+ 32

^(a) Includes provision for renewals, long service leave, etc. ^(b) County of Cumberland, City of Greater Wollongong, Shellharbour and Kiama Municipalities, and parts of Colo and Wollondilly Shires. ^(c) Newcastle-Maitland-Cessnock areas. ^(d) Includes General Fund indebtedness not dissected by services.

Local government country water supply and sewerage systems. At 31 December 1967, country water supply services were conducted or under construction by 48 municipalities, 92 shires and 6 county councils, and country sewerage services by 51 municipalities and 51 shires. The capital indebtedness of these schemes was \$118,822,000 at 31 December 1967. Debt of the municipalities amounted to \$56,461,000, shires to \$48,152,000, and county councils to \$14,209,000. Government advances amounting to \$866,000 are included in these figures. Aggregate income and expenditure amounted to \$21,715,000 and \$15,420,000, respectively, in 1967.

Other country water supply and sewerage systems. The water supply and sewerage services for Broken Hill are operated by a statutory board, the Broken Hill Water Board. Its capital indebtedness at 31 December 1969 was \$5,601,000. In 1969, income (excluding subsidies, State Government \$201,000 and mining companies \$511,000) amounted to \$781,000 and expenditure (excluding debt redemption \$290,000) amounted to \$1,197,000. The Cobar Water Board was constituted in February 1964. At 31 December 1969 its capital indebtedness was \$2,269,000. 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 Electricity Commission of New South Wales, and other large consumers. Only a small quantity is sold direct to private consumers. The capital indebtedness of these systems was \$15,050,000 at 31 December 1969. 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.

Victoria

Melbourne and Metropolitan Board of Works. The Board consists of a Chairman and fifty-two Commissioners elected to represent the municipalities which lie wholly or partly within the metropolitan area. The principal functions of the Board are: 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; to control and manage the rivers, creeks and watercourses within the metropolitan area; and to carry out the functions of a permanent planning authority.

Metropolitan water supply. There are 6 storage reservoirs serving the metropolitan area—Yan Yean, 7,233 million gallons (available for consumption, 6,649 million gallons); Toorourrong, 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 49, with a total capacity of 373 million gallons. The following table shows particulars of Melbourne metropolitan water supply services for the years 1965-66 to 1969-70.

MELBOURNE WATER SUPPLY: SERVICES, 1965-66 TO 1969-70

Year	Number of houses supplied	Estimated population supplied	Average daily consumption	Total consumption for the year	Average daily consumption		Length of aqueducts, etc. mains and reticulation	Number of meters
					Per head of estimated population	Per house		
		'000	mil. gal	mil. gal	gallons	gallons	miles	
1965-66	612,844	2,120	178.7	65,218	292	84.2	6,280	536,093
1966-67	626,690	2,143	188.5	68,815	301	88.0	6,517	559,713
1967-68	642,039	2,170	139.0	50,876	216	64.1	6,791	577,713
1968-69	658,944	2,227	173.4	63,288	263	77.9	7,034	595,560
1969-70	676,111	2,285	183.7	67,063	272	80.4	7,176	612,074

Metropolitan sewerage and drainage. Particulars of sewerage and drainage services for 1965-66 to 1969-70 are shown on the next page.

MELBOURNE SEWERAGE AND DRAINAGE: SERVICES, 1965-66 TO 1969-70

Year	Number of houses for which sewers are provided	Estimated population for which sewers are provided	Average daily pumping		Average daily pumping		Length of sewers, etc.	Length of main drains
			Average daily pumping	Total sewage pumped for the year	Per house	Per head of estimated population		
1965-66	467,705	1,599	mil. gal	mil. gal	gallons	gallons	miles	miles
1965-66		'000						
1965-66			94.6	34,545	202.4	59.2	4,311	229
1966-67	484,798	1,629	98.1	35,793	202.3	60.2	4,554	233
1967-68	509,185	1,719	86.1	31,514	169.1	50.1	4,739	240
1968-69	528,983	1,788	96.7	35,300	182.8	54.1	4,906	250
1969-70	543,870	1,846	109.5	39,972	201.3	59.3	5,073	255

The metropolitan sewerage system consists of the main system (serving an area of 117,945 acres) and 8 subsidiary systems—the Braeside system (serving an area of 6,618 acres), the Kew system (serving an area of 113 acres), the Maribyrnong system (serving an area of 182 acres), the Watsonia system (serving an area of 253 acres), the Lower Plenty system (serving an area of 1,700 acres), and the Heatherton system (serving an area of 1,184 acres), the Altona system (serving an area of 137 acres) and the Chelsea system (serving an area of 670 acres). The Board of Works Farm, 26,809 acres in extent and situated about twenty-four miles south west of Melbourne beyond the township Werribee, serves to purify and dispose of approximately ninety-five per cent of the sewerage flow of the metropolis before its discharge into Port Phillip Bay.

Melbourne and Metropolitan Board of Works' finances. The following table provides for the year 1969-70 a summary of the financial operations of the water supply, sewerage and drainage services conducted by the Melbourne and Metropolitan Board of Works, and of the combined services for the years 1965-66 to 1969-70. The financial operations of the Board as the Authority responsible for metropolitan highways and bridges are referred to on pages 603-4.

MELBOURNE AND METROPOLITAN BOARD OF WORKS: FINANCES
1965-66 TO 1969-70
(\$'000)

Service, etc.	Capital cost of works and buildings at 30 June(a)	Expenditure					Surplus (+) or deficit (-)	
		Revenue	Working expenses	Interest and Works exchange	Debt redemption	Total		
Water	198,817	20,266	6,800	910	9,600	..	17,310	+2,956
Sewerage	252,009	24,258	6,847	1,700	12,486	..	21,033	+3,225
Drainage	37,594	4,573	1,188	990	1,582	..	3,760	+ 813
General(b)	17,537	..	3,850	..	..	3,443	7,293	-7,293
Total, 1969-70	505,957	49,097	18,685	3,600	23,668	3,443	49,396	- 299
1968-69	449,333	41,981	15,427	2,334	21,184	3,239	42,183	- 202
1967-68	411,221	35,587	13,213	1,776	19,258	2,685	36,932	-1,345
1966-67	376,271	32,111	12,333	..	17,834	2,552	32,719	- 608
1965-66	345,210	30,165	11,362	..	16,526	2,274	30,162	+ 3

(a) Total loan indebtedness—1969-70, \$447,006,289. (b) Statutory and general expenditure not distributed over services.

State Rivers and Water Supply Commission. Water supply and conservation throughout Victoria (except for the area controlled by the Melbourne and Metropolitan Board of Works) is under the jurisdiction 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 improvements, are described in the chapter, Water Conservation and Irrigation. This section is therefore confined to the Commission's functions in connection with urban water supply and sewerage.

Extra-metropolitan water supply. At 30 June 1970 the Commission provided a reticulated water supply from its own works to 148 cities and towns having a combined population of 248,220 persons. The principal systems operated by the Commission serve part of the Mornington Peninsula—Dandenong area (about 116,000 people supplied); Bendigo, Castlemaine, etc. (58,500); and about 8,700 people in the Western District. In addition, 14,000 persons in a number of towns in the Bellarine Peninsula receive supply through a Commission-operated distributory system from headworks controlled by the Geelong Waterworks and Sewerage Trust. The Bendigo-Castlemaine supply also provides for the irrigation of 11,000 acres as well as urban requirements in the area. 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 by the Commission on urban water supply at 30 June 1970 was divided between the several systems as follows: Mornington Peninsula, \$33,478,000, Bendigo-Castlemaine, \$15,343,000 (includes the cost of supplying a comparatively large rural system with water for irrigation, stock and domestic purposes); Bellarine Peninsula, \$3,867,000; Otway System (Western District), \$3,229,000; other \$3,441,000; total, \$59,358,000. This expenditure is net of redemption payments and includes expenditure on Lake Eppalock not yet charged to the water users. In addition to the towns supplied by the Commission there are some 678,060 people in 259 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 subsidises their capital expenditure. Most new works are financed from Government loan funds, but the Geelong Trust and in recent years some other local authorities borrowed money privately. In most cases the local authority controls both headworks and distribution system, but several towns 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 407 urban centres containing some 926,280 people. Very few towns of any importance are now without reticulated water supply.

Extra-metropolitan sewerage systems. 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 30 June 1970, 101 sewerage authorities had been constituted. Of these 77 had systems in operation and 10 had works under construction.

Expenditure on sewerage in Victorian country towns at 30 June 1970 was approximately \$94,014,600, of which some \$77,038,600 had been advanced by private lenders. The annual State subsidy on country sewerage in Victoria is currently about \$1,458,300, provided mainly in the form of subsidies on interest rates paid along the same lines as for town water supply.

The *Geelong water supply scheme*, operated by the Geelong Waterworks and Sewerage Trust, comprises two systems for gathering and storing water, the water in both systems being brought over fifty miles to Geelong. There are 8 storage reservoirs and 11 service basins whose total storage capacity is 13,446 million gallons. The length of water mains and reticulation is 580.3 miles. The total expenditure on water supply to 30 June 1970 was \$19,893,768. General fund expenditure for 1969-70 comprised \$523,871 for working expenses and \$1,412,652 for interest, redemption and reserves, while revenue from water rates, etc., amounted to \$1,960,961. The sinking fund appropriations at June 1970 amounted to \$1,458,684. The replacement and contingencies reserve amounted to \$1,712,848.

The *Geelong Waterworks and Sewerage Trust sewerage scheme* consists of a main outfall sewer to the ocean and 366.2 miles of main and reticulation sewers. The sewerage area is 21,220 acres, and the number of buildings connected within the sewered areas is 30,272. The total expenditure on sewerage works to 30 June 1970 was \$14,202,560. The revenue from sewerage rates, etc., in 1969-70 amounted to \$1,234,597, and the general fund expenditure comprised \$342,375 on working expenses and \$904,824 on interest, redemption, and reserves. Sinking fund appropriations at 30 June 1970 were \$723,156. Replacement and contingencies reserve amounted to \$1,513,105.

The *Ballarat water supply district* comprises an area of about 65 square miles, containing a population of about 67,000. The total storage capacity of the 7 reservoirs is 5,435 million gallons and the catchment area is 24,182 acres. The capital cost of construction of the waterworks was \$6,365,863 to 31 December 1970. Loan liability amounted to \$4,097,291 at 31 December 1970, including loans due to the Government totalling \$3,563,547. Revenue for the year 1970 was \$553,606. Working expenses during 1970 amounted to \$282,398 and interest and other charges to \$270,114.

The *Ballarat sewerage district* comprises the City of Ballarat, the Borough of Sebastopol, and parts of the Shires of Ballarat, Bungaree, Buninyong, and Grenville. There are more than 231 miles of sewers. The capital cost of sewerage construction works to 31 December 1970 was \$6,120,274. Assessments in the sewerage district numbered 20,907 while those in seweraged areas numbered 19,431. There were 16,906 buildings connected. Loan liability at 31 December 1970 amounted to \$5,192,098, redemption payments at that date totalled \$1,025,729. House connections financed by the Authority numbered 4,775. Revenue from rates during 1970 amounted to \$569,782, and expenditure, which included \$373,893 for interest and redemption, was \$574,763.

The *Latrobe Valley Water and Sewerage Board* constructs and operates water supply works within the Latrobe Valley. The Board supplies water from the Moondarra Reservoir on the Upper Tyers River to the Latrobe Valley area. The capacity of this storage is approximately 7,000 million gallons and water is conveyed from the reservoir, a distance of approximately 13 miles. The Board does not strike a water rate, but supplies consumers, including local water supply authorities, by measure. The quantity supplied during the year ended 30 June 1970 was 14,200 million gallons. The capital cost of water supply construction works to 30 June 1970 was \$11,598,656, and loan liability, due to the Government, was \$11,215,410.

The *Latrobe Valley sewerage system* consists of a main outfall sewer, about 52 miles in length, to convey wastes to an area where they are disposed of on land for agricultural purposes. No sewerage rate is levied, but a charge is made by measure for wastes received both from industries and public authorities. Effluent flows accepted from the various contributors averaged 6.67 million gallons per day. The capital cost of the sewerage construction works to 30 June 1970 was \$6,978,721 and loan liability due to the Government was \$6,217,122. Revenue in 1969-70 was \$1,265,165 and was derived from: water charges \$824,955, sewerage charges \$432,917, and works for other authorities \$7,293. Total expenditure in 1969-70 was \$1,049,138 including interest on loans \$415,175.

Queensland

The *Brisbane City Council* operates the water supply and sewerage systems of the City of Brisbane, and also supplies, in bulk, the whole of the water used by the City of Ipswich and a portion of that used by the City of Redcliffe and Albert Shire Council. Redcliffe supplements its supply from that of the Pine Rivers Shire Council, while Albert also draws on its own reservoirs. Storage facilities for *Brisbane water supply* comprise the following (available capacities are shown in parentheses): Somerset Reservoir, 200,000 million gallons (67,500 million gallons); Lake Manchester, 5,720 million gallons (5,720 million gallons); Brisbane River, Mount Crosby Weir, 4 million gallons (4 million gallons); Clear Water Reservoir, Holt's Hill, 11 million gallons (11 million gallons); Enoggera Reservoir, 600 million gallons (600 million gallons); Gold Creek Reservoir, 400 million gallons (400 million gallons); Green Hill Reservoir, 17 million gallons (17 million gallons); Tarraginal Hill Reservoir, 13 million gallons (13 million gallons); and another nineteen service reservoirs totalling 41.09 million gallons capacity. The total number of service reservoirs for Brisbane Water Supply is 26, with a capacity of 72 million gallons. The Somerset reservoir is a dual purpose project with a designed total holding capacity of 200,000 million gallons, 67,500 million gallons to be for water storage and 132,500 million gallons for flood mitigation. The following table is a summary of operations of the complete Brisbane City Council system (Brisbane, Ipswich, Redcliffe, and portion of Albert Shire) for the years 1965-66 to 1969-70.

BRISBANE WATER SUPPLY(a): SERVICES, 1965-66 TO 1969-70

Year	Services connected	Estimated population supplied	Average daily consumption	Total consumption for the year	Average daily consumption		Length of trunk and reticulation mains
					Per service	Per head of estimated population	
			mil. gal	mil. gal	gallons	gallons	miles
1965-66	197,707	722,970	67.6	24,668	342	93.5	2,666
1966-67	202,886	740,332	66.1	24,110	326	89.2	2,735
1967-68	207,657	759,434	76.7	27,984	369	101.0	2,823
1968-69	213,445	772,356	85.4	31,170	400	110.6	2,834
1969-70	218,798	799,276	81.9	29,888	374	102.4	2,972

(a) Includes Ipswich, Redcliffe and portion of Albert Shire.

The sewage treatment works of the *Brisbane sewerage scheme* is situated at Luggage Point at the entrance to the Brisbane River. The following table is a summary of operations of the Brisbane sewerage scheme for the years 1965-66 to 1969-70.

BRISBANE SEWERAGE: SERVICES, 1965-66 TO 1969-70

Year	Premises connected	Estimated population served	Total sewage pumped for the year	Length of main, branch, reticulation, etc. sewers
			mil. gal	miles
1965-66 . . .	90,940	336,478	8,821	1,341
1966-67 . . .	102,062	377,629	9,042	1,472
1967-68 . . .	109,364	404,647	8,358	1,607
1968-69 . . .	122,690	453,953	8,619	1,824
1969-70 . . .	143,245	530,007	9,313	2,048

Brisbane City Council water supply and sewerage systems—finances. The following table shows particulars of the finances of the water supply and sewerage undertakings of the Brisbane City Council for the years 1965-66 to 1969-70.

BRISBANE WATER SUPPLY AND SEWERAGE: FINANCES, 1965-66 TO 1969-70
(\$'000)

Service and year	Gross capital cost to 30 June	Revenue	Expenditure		Total(a)	Surplus (+) or deficit (-)
			Working expenses	Interest, redemption, etc. charges		
Water supply—						
1965-66 . . .	54,635	8,365	3,069	2,503	8,471	- 106
1966-67 . . .	59,947	8,977	3,414	2,630	8,803	+ 174
1967-68 . . .	64,626	9,808	3,661	2,760	9,132	+ 676
1968-69 . . .	69,719	10,214	3,994	2,835	9,334	+ 880
1969-70 . . .	69,726	10,697	4,044	2,995	10,145	+ 552
Sewerage—						
1965-66 . . .	55,858	4,829	882	1,829	4,172	+ 657
1966-67 . . .	61,517	5,535	1,024	1,966	4,709	+ 826
1967-68 . . .	69,264	7,237	1,105	2,225	6,619	+ 618
1968-69 . . .	72,123	8,404	1,250	2,443	7,696	+ 708
1969-70 . . .	74,489	8,848	1,481	2,677	7,881	+ 967

(a) Total, including other expenditure.

Country towns. In addition to the City of Brisbane, there were at 30 June 1969, 245 cities and towns in Queensland provided with water supply systems controlled by municipal and shire councils. At 30 June 1969 there were 66 cities or towns in addition to Brisbane with sewerage systems. The receipts (other than loan and loan subsidy) of water undertakings controlled by the cities and towns referred to above amounted to \$10,345,587 in 1968-69. Expenditure amounted to \$10,717,951, including \$4,526,118 for debt charges. In addition, expenditure from loans and loan subsidy amounted to \$10,534,631. Finances of sewerage undertakings are incorporated in council general funds and are not available separately.

South Australia

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 metropolitan and country sewerage systems, the Metropolitan Flood Waters

Scheme, and works on the River Murray constructed under the River Murray Waters Agreement. Several water supply schemes on the Murray River are administered by the Department of Lands in conjunction with irrigation works, and supplies to Woomera and Leigh Creek coalfield are controlled by the operating authorities.

Adelaide waterworks. At 30 June 1970 the Adelaide waterworks supplied districts covering 384 square miles of the metropolis and extending to near country areas. The capacity of reservoirs and storage tanks was 41,912 million gallons and there were 3,627 miles of metropolitan mains. The Mannum-Adelaide pipeline conveys water from the River Murray to Adelaide at a rate of up to 66 million gallons a day. Water is delivered to a terminal storage near Adelaide and thence to the metropolitan distribution system or alternatively it can be delivered into metropolitan reservoirs on the River Torrens or to reservoirs on the River Onkaparinga by further pumping. The pipeline also supplies various country areas along and extending from its route.

ADELAIDE WATERWORKS: FINANCES, 1965-66 TO 1969-70
(\$'000)

Year	Invested capital at 30 June (a)	Revenue	Expenditure			Surplus (+) or deficit (-)
			Working expenses (b)	Interest	Total	
1965-66	98,056	9,521	5,292	4,248	9,540	- 19
1966-67	104,067	11,083	5,142	4,500	9,642	+ 1,441
1967-68	108,936	10,267	6,746	4,730	11,476	- 1,209
1968-69	114,121	10,793	5,552	4,919	10,471	+ 322
1969-70	123,817	12,722	6,236	5,399	11,636	+ 1,086

(a) After deduction of depreciation. (b) Includes debt redemption.

Adelaide metropolitan sewerage system. The Adelaide metropolitan sewerage system, comprising the Adelaide, Glenelg, Port Adelaide, Christies Beach, and Salisbury-Elizabeth areas of 197 square miles in all, includes treatment works at Glenelg, Port Adelaide, Bolivar, and Christies Beach. Financial and other particulars for 1965-66 to 1969-70 are shown hereunder.

ADELAIDE METROPOLITAN SEWERAGE: SUMMARY, 1965-66 TO 1969-70

Year	Length of sewers miles	Number of con- nections	Invested capital at 30 June(a)	Expenditure			Surplus	
				Revenue	Working expenses (b)	Interest		Total
			\$'000	\$'000	\$'000	\$'000	\$'000	
1965-66	1,952	213,375	56,235	6,386	2,614	1,561	4,175	2,211
1966-67	2,039	220,799	66,158	6,804	2,880	2,195	5,075	1,729
1967-68	2,125	227,489	74,808	7,156	3,375	2,822	6,197	959
1968-69	2,193	234,818	78,141	7,601	3,463	3,073	6,536	1,065
1969-70	2,276	244,239	84,080	8,644	3,716	3,601	7,317	1,327

(a) After deduction of depreciation. (b) Includes debt redemption.

Country sewerage schemes. Sewerage schemes are operating at Port Lincoln, Naracoorte, Mount Gambier, Lobethal, Gumeracha, Nangwarry, Mount Burr, Myponga, Mannum, Whyalla and Angaston. At Port Lincoln and Mount Gambier the sewers discharge to ocean outfalls, and treatment works are used on the other systems. There are 277 miles of sewers and 14,705 connections in the country systems. Sewerage schemes for Port Pirie, Murray Bridge and Millicent are under construction and operating in part.

Country water supply. Water districts systems at 30 June 1970 comprised an area of 15,840,000 acres. Supply came from reservoirs having a total capacity of 21,186 million gallons, from the River Murray, and from underground sources. Apart from local supplies, water from the River Murray is distributed over wide areas through the Mannum-Adelaide, Morgan-Whyalla, Swan Reach-Stockwell and Taillem Bend-Keith pipelines and branches of these pipelines. 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 or from lakes, and from sand beds on Eyre Peninsula. In the year 1969-70 supplies made to Mount Gambier, Naracoorte and other towns in the south-east amounted to 1,279 million gallons, and the Unley-Wanilla, Lincoln and Polda Basins contributed 499 million gallons to the Tod River Water District.

COUNTRY WATERWORKS, SOUTH AUSTRALIA: FINANCES, 1965-66 TO 1969-70
($\*000)

Year	Invested capital at 30 June(a)	Expenditure				Total	Deficit
		Revenue	Working expenses (b)	Interest			
1965-66	103,772	3,872	4,553	4,128	8,681	4,809	
1966-67	109,701	4,591	4,817	4,437	9,254	4,663	
1967-68	117,541	4,340	5,262	4,954	10,216	5,876	
1968-69	123,870	4,722	5,236	5,284	10,520	5,798	
1969-70	130,870	5,117	5,840	5,969	11,809	6,692	

(a) After deduction of depreciation. (b) Includes debt redemption.

Morgan-Whyalla water supply scheme. This scheme, which has 223 miles of main via Port Augusta and 176 miles of main via the Spencer Gulf undersea crossing, was officially opened on 31 March 1944, the capital invested to 30 June 1970 being \$37,000,000. Apart from supplying Whyalla, the mains have 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, Port Pirie and Port Augusta. During 1969-70 water used from the scheme amounted to 4,779 million gallons.

Western Australia

The principal water supply systems of Western Australia are under the control of two State authorities, the Metropolitan Water Supply, Sewerage and Drainage Board and the Department of Public Works and Water Supply. The area which constitutes the territory administered by the Board encompasses approximately 1,270 square miles and extends from Perth southward to Rockingham and Serpentine, northward to Sorrento, and eastward to Sawyers Valley and Kalamunda. The Department of Public Works and Water Supply controls the Goldfields and Agricultural Water Supply and the Great Southern Towns Water Supply as well as 121 local water supplies (*see also* Chapter 24, Water Conservation and Irrigation). Four independent town schemes are controlled by local Water Boards in country areas, and individual water supplies serve railways, timber mill towns, isolated mines, pastoral properties, stock routes, and agricultural areas, mainly from dams, tanks, wells and bores.

Metropolitan water supply, sewerage and drainage. The sources of the metropolitan water supply are Serpentine Reservoir and Serpentine Pipehead Reservoir, Canning Reservoir, Wungong Brook Diversion Weir, Churchman Brook Reservoir, and Victoria Reservoir. The largest of these sources are the Serpentine Reservoir and the Canning Reservoir, which have a capacity of 39,000 million gallons and 20,550 million gallons respectively. Water from storages on the Darling Range is conveyed to service reservoirs to serve the City of Perth and the metropolitan area. A limited quantity of water is drawn from Mundaring Weir to serve sections of Greenmount, and to meet the peak demands of summer consumption supplies are supplemented from artesian bores, which can provide a daily maximum of 21 million gallons. The amount of bore water used is rarely more than 10 per cent of the metropolitan consumption and is usually considerably less.

The following table shows particulars of the *metropolitan water supply services* for 1965-66 to 1969-70.

**METROPOLITAN WATER SUPPLY, WESTERN AUSTRALIA: SERVICES
1965-66 TO 1969-70**

Year	Number of services (a)	Average daily consumption	Total consumption for year	Average daily consumption per service (b)	Length of mains	Number of meters
		mil. gal	mil. gal	gallons	miles	
1965-66 . . .	158,675	59.5	21,707	380	2,654	139,435
1966-67 . . .	164,782	70.8	25,843	437	2,798	146,028
1967-68 . . .	173,068	68.2	24,958	403	2,923	152,603
1968-69 . . .	185,340	76.7	28,015	429	3,144	161,859
1969-70 . . .	193,359	87.2	31,820	458	3,317	171,346

(a) Figures relate to 30 June. (b) Calculated from averages for the year.

Some particulars of the *metropolitan sewerage and main drainage services* for 1965-66 to 1969-70 are shown in the following table.

**METROPOLITAN SEWERAGE AND MAIN DRAINAGE
WESTERN AUSTRALIA: SERVICES 1965-66 TO 1969-70**

Year	Services	Length of sewers	Length of main drains
		miles	miles
1965-66	70,283	816	102
1966-67	71,188	848	109
1967-68	72,177	886	118
1968-69	74,018	931	126
1969-70	76,638	988	141

Metropolitan Water Supply, Sewerage and Drainage Board—finances. The following table shows particulars of the finances of the Western Australian Metropolitan Water Supply, Sewerage and Drainage Board.

**METROPOLITAN WATER SUPPLY, SEWERAGE AND MAIN DRAINAGE
WESTERN AUSTRALIA: FINANCES, 1965-66 TO 1969-70
(\$'000)**

Service and year	Capital cost to 30 June	Revenue	Expenditure		Total	Surplus (+) or deficit (-) Total
			Working expenses	Interest and debt redemption		
Water supply—						
1965-66	58,336	4,861	1,815	3,018	4,833	+ 28
1966-67	62,137	5,551	2,307	3,061	5,368	+ 183
1967-68	66,217	5,782	2,292	3,243	5,535	+ 247
1968-69	74,078	7,162	2,322	3,510	5,832	+ 1,331
1969-70	82,482	7,915	2,808	3,949	6,757	+ 1,159
Sewerage—						
1965-66	24,243	2,823	1,336	1,176	2,512	+ 310
1966-67	26,737	3,000	1,622	1,340	2,961	+ 38
1967-68	29,286	3,198	1,689	1,474	3,164	+ 34
1968-69	34,027	3,809	1,771	1,637	3,408	+ 401
1969-70	40,821	4,162	1,983	1,867	3,850	+ 313
Main drainage—						
1965-66	6,344	418	245	275	520	- 102
1966-67	6,956	629	298	319	617	+ 12
1967-68	7,433	721	314	349	663	+ 58
1968-69	8,657	872	327	375	702	+ 170
1969-70	9,838	951	353	407	760	+ 192

Country water supplies. Information relating to country water supplies is included in Chapter 24, Water Conservation and Irrigation.

Tasmania

Waterworks. During the year 1969–70, water was supplied to approximately 112,000 properties which consumed almost 16,000 million gallons.

In Tasmania, water supply was once the exclusive responsibility of the city and municipal councils. In recent years, two semi-government authorities have been set up to operate bulk supply schemes for distribution by the local government authorities in the Hobart and Launceston areas, and directly to some industrial consumers. The North Esk Regional Water Supply Scheme is operated by the Rivers and Water Supply Commission as a State concern, supplying bulk water to the municipalities of St Leonards, George Town, Lilydale, and portion of Westbury. This scheme supplies water to industries situated near the Tamar River. Also vested in the Commission is the West Tamar Water Supply Scheme which serves the Municipality of Beaconsfield, and is operated by the Beaconsfield Council as the agent of the Commission. The over-all control of water supply in the greater Hobart area, comprising the municipalities of Hobart, Clarence, Glenorchy, and Kingborough, is vested in the Metropolitan Water Board, but the municipalities retain primary responsibility for reticulation. The Board has constructed a large pumping station at Bryn Estyn, near New Norfolk, which supplies bulk water from the Derwent River to the metropolitan area and has a pipeline capacity of 20 million gallons a day. In addition, the Board also controls the Southern Regional Water Supply Scheme with a pipeline capacity of 6.9 million gallons a day which supplies water to Hobart's eastern shore and nearby towns.

Sewerage. At the end of 1969–70 the number of tenements connected to sewerage services was about 78,000, about 60 per cent of sewerage discharge is subject to treatment.

Northern Territory

Information relating to water supply in the Northern Territory may be found in Chapter 24, Water Conservation and Irrigation.

Australian Capital Territory

The water supply, sewerage and drainage systems in the Australian Capital Territory are under the control of the Commonwealth Department of Works. The sources of the water supply are: Cotter Dam (capacity 1,034 million gallons), Bendora Dam (2,360 million gallons) and Corin Dam (capacity 16,600 million gallons). Water is fed from Bendora Dam by gravity to 20 major reservoirs. The maximum daily supply is 45.9 million gallons. An alternative supply is available from 9 pumps at the Cotter Dam at a rate of 38.5 million gallons per day.

The total population served in the Australian Capital Territory, which during 1969–70 consumed 5,439.1 million gallons of water, was 127,000 (at 31 December 1969). In addition, the Canberra water supply system supplied 371 million gallons of water to Queanbeyan, New South Wales. The total number of water meters at 30 June 1970 was 34,021 and the total length of water lines was 689 miles.

The sewerage system for Canberra suburbs has three treatment works: the Weston Creek works provide for 105,000 persons, the Fyshwick works provide for 10,000 persons and the Belconnen works provide for 15,000 persons. There were 654 miles of sewerage, and 9 miles of sewer rising mains (at 30 June 1970). There were also 659.1 miles of storm-water drains.

Harbour boards and trusts

The number and net tonnage of vessels which entered the major ports in each State during the years 1968–69 and 1969–70 are shown in Chapter 12, Transport, Communication and Travel (*see* page 332). Particulars of overseas and interstate cargo discharged and shipped are shown on pages 333–4 of the same chapter.

New South Wales

The Maritime Services Board of New South Wales 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.

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 45 feet deep (low water ordinary spring tide) and the Eastern Channel 42 feet deep. The foreshores are 152 miles in length, and the total area of the port is 13,600 acres, 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 close to the business centre of the city, about four or five miles from the Heads. At 30 June 1970 there were 5 dolphin berths, 3,350 feet long, and 83 effective commercial cargo berths, with a total length of 42,192 feet, controlled by the Board. Accommodation for harbour craft amounts to 2,245 feet, while the length of other berths, including oil and private wharves, totals 28,623 feet. Depth of water at wharves is up to 43 feet. Special facilities for the storage and handling of products such as wheat, wool, coal, etc. are provided. Docking facilities are available for large vessels at the Captain Cook Graving Dock. Containers facilities became available in March 1969 with the opening of the eastern section of the Balmain container terminals to cellular container vessels.

Port of Newcastle. Shipping at Newcastle is concerned primarily with the coal, iron and steel and other heavy industries located in the district. However, facilities are available for the shipment of wool, wheat and frozen meat, and a wharf is available for timber. The area used by shipping is about 570 acres, excluding the entrance to the harbour and the inner basin, which together cover an area of 162 acres. The width of the harbour at the entrance is 1,200 feet, and the navigable channel, with a depth of 36 feet at low water, is 500 feet wide. Wharfage accommodation amounts to approximately 15,000 feet, including about 3,000 feet of privately owned wharfage. A floating dock of 9,300 tons capacity is available at the port and a coal loading plant capable of loading at the rate of 2,000 tons an hour is now operating. The bulk berth which recently became operative at Kooragang is equipped with two grab unloaders each with a nominal capacity of 650 tons an hour. A general cargo berth in Throsby Basin is to be equipped with a 26 ton crane capable of handling standard containers. A new silo berth is on the western side of Carrington Basin capable of loading at the rate of 4,000 tons per hour.

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, near Sydney, and one jetty with a tanker berth each side of the jetty is available as well as three tanker offshore moorings with submarine pipelines. The entrance to the Bay is approximately one and a quarter miles wide, with a minimum depth of 50 feet and about 42 feet in the dredged swinging basin.

Port Kembla is the port of the southern coalfields and for the major industrial areas in and about Wollongong. The port has an area of approximately 340 acres, with depths ranging from 20 to 50 feet (low water ordinary spring tide), and wharfage accommodation totalling 6,600 feet is provided for shipping. No cargo sheds are available, as the nature of the trade at the port does not call for the provision of sheltered storage accommodation. The Inner Harbour, which at present covers an area of approximately 110 acres, contains 2,550 feet of wharfage with depths alongside ranging from 35 to 38 feet. The facilities include a 2,000 tons per hour coal loader and a roll-on/roll-off berth. An 800 foot berth is under construction.

Other ports. In addition to the port 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.

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 1 February 1936 the State enactments have been administered by the Maritime Services Board. The total revenue collections by the Maritime Services Board amounted to \$33,143,000 in 1969-70. This figure includes the revenue for the ports of Sydney, Newcastle and Botany Bay.

Financial details relating to these three ports are shown in the following table.

MARITIME SERVICES BOARD FUND: FINANCES OF THE PORTS OF SYDNEY
NEWCASTLE AND BOTANY BAY, 1965-66 TO 1969-70
(\$'000)

Year	Revenue			Expenditure(a)				Surplus
	Wharfage and transhipment rates	Tonnage rates and berthing charges	Other charges	Total	Adminis-tration and mainten-ance	Interest, debt redemption, exchange, etc.	Total	
1965-66	10,711	1,832	3,980	16,523	9,512	6,916	16,428	95
1966-67	11,501	1,895	4,282	17,678	9,476	8,113	17,589	89
1967-68	12,664	2,024	5,645	20,333	10,830	9,451	20,280	53
1968-69	13,580	2,085	7,294	22,959	12,150	10,716	22,866	93
1969-70	14,854	2,271	7,871	25,000	12,816	12,120	24,937	64

(a) Excludes capital expenditure but includes transfers to the Renewals Fund Reserve Account (\$3,060,000 in 1965-66, \$3,975,000 in 1966-67, \$4,940,000 in 1967-68, \$5,800,000 in 1968-69 and \$6,760,000 in 1969-70)

Victoria

The *Port of Melbourne* comes under the control of the Melbourne Harbour Trust Commissioners, a financially independent statutory organisation, with a full-time chairman and five part-time commissioners. The area of water and land under the control of the Trust is ten and a half square miles, with sheds available for cargo in transit totalling 22,928 feet in length and covering an area of about 43 acres. Three of the largest transit sheds on the Australian coast are in operation at Appleton Dock. The sheds are 600 feet long by 150 feet wide, each with a cargo stacking area of 81,000 square feet. The berths are used for conventional general cargo trade as well as the unit-load container handling for general cargo in the overseas trade. The total length of wharves, piers and jetties in the port is 61,550 feet, covering an area of about 59 acres with 56,940 feet of effective berthing space.

In line with world-wide changes in cargo handling methods, current planning and construction in the Port of Melbourne are almost exclusively devoted to facilities catering for container ships and cargo as well as for the multi-purpose unit-load container conventional ships and cargo. The port's first overseas container terminal, Swanson Dock, which has 1,600 feet of concrete wharf apron with 24 acres stacking area behind the berth, was officially opened on 7 March 1968. Of the two additional 800 feet long 'common user' container berths on the east side of Swanson Dock one is expected to be completed in 1971 and the other in 1972. Two roll-on/roll-off container unit-load berths were completed in early 1969, one at North Wharf for the trans-Tasman trade to New Zealand, having a 580 feet wharf apron and 3.3 acre stacking area behind the berth and the other at Webb Dock, with a 600 feet wharf apron and additional 11.3 acre stacking area for the eastern seaboard trade.

The depth of water (low water ordinary spring tide) from the main channels to the principal wharves is 31 to 37 feet.

The following table shows particulars of the financial operations of the Trust.

MELBOURNE HARBOUR TRUST: FINANCES, 1966 TO 1970
(\$'000)

Year	Revenue			Expenditure			Total	Surplus
	Gross loan indebtedness at 31 December	Wharfage and tonnage rates	Total	Opera-tion, adminis-tration and mainten-ance	Interest, debt redemption, exchange, etc.	General reserve, deprecia-tion, renewals and insurance account		
1966	32,229	6,393	10,695	6,235	1,712	2,583	10,530	165
1967	34,484	6,692	11,322	6,441	2,142	2,567	11,150	172
1968	36,029	8,357	13,573	6,972	2,381	4,002	13,355	218
1969	37,888	8,901	14,321	7,903	2,127	4,049	14,079	242
1970	40,690	9,475	15,047	8,512	2,869	3,419	14,800	247

The *Port of Geelong* operated by the Geelong Harbour Trust, has available 17 effective berths, plus 2 berths at the Commonwealth Explosives Pier, Point Wilson, owned and operated by the Commonwealth. Two modern dry bulk berths (Lascelles Wharf Nos 1 and 2 berths) became fully operational in 1970 and a roll-on/roll-off berth at Corio Quay came into operation in January 1971. The Trust operates its own towage fleet of six tugs, the largest of 1,900 b.h.p. Eight berths have a depth of 36 feet at low water; all other berths (except Commonwealth Explosives Pier, Point Wilson and Point Henry Pier, 30 feet) have a depth of 32 feet at low water. Revenue for the year 1969 was \$3,450,641, and expenditure from revenue totalled \$2,541,678. At 31 December 1969 the value of the Trust's fixed assets was \$26,620,477 and loans outstanding amounted to \$8,093,615.

The *Port of Portland* provides unimpeded access for large ocean-going vessels to the entrance of a 250-acre harbour basin having a minimum depth of 36 feet of water under all tidal conditions. Since the new all-weather deep-sea port was completed to operational standards during 1960 an oil tanker berth has been commissioned and a new bulk berth completed for the handling of dry bulk commodities. A 1.25 million bushel bulk grain terminal opened during 1965 has since been doubled and a 4 million bushel horizontal wheat storage erected for use by the Victorian Grain Elevators Board. During 1969-70, the construction of a transit shed on No. 1 berth, the completion of an oil-fired incinerator to safely dispose of ship's garbage and the arrival on station of a new 1,600 h.p. ocean-going tug were projects that will provide valuable facilities in the future.

Operating revenue and expenditure for the year ended 30 June 1970 were \$873,031 and \$500,576 respectively. The value of the Trust's fixed assets, less depreciation, was \$19,794,812 at 30 June 1970, and loans and advances outstanding amounted to \$20,165,225.

Queensland

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.

Brisbane. Brisbane, in its dredged and improved river, accommodates comfortably 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 1965-66 to 1969-70 are shown in the following table.

BRISBANE HARBOUR: FINANCES, 1965-66 TO 1969-70
(\$'000)

Year	Loan indebtedness at 30 June	Receipts		Payments	
		Harbour dues	Total	Working expenses(a)	Total
1965-66 . . .	4,787	2,094	3,121	2,157	2,498
1966-67 . . .	4,636	2,044	2,987	2,228	2,561
1967-68 . . .	4,504	2,019	3,475	3,039	3,376
1968-69 . . .	4,890	2,333	3,622	3,156	3,483
1969-70 . . .	5,726	2,320	3,772	4,542	4,927

(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 twelve smaller harbours not administered by harbour boards.

Harbour boards. Harbour boards control the ports of Bowen, Bundaberg, Cairns, Gladstone, Mackay, Rockhampton, and Townsville. Finances for each port for the year ended 30 June 1969 are shown on page 623, together with a summary for the years ended 30 June 1965 to 1969.

HARBOUR BOARDS, QUEENSLAND: FINANCES, 1964-65 TO 1968-69
(\$'000)

Harbour board	Revenue			Expenditure (excluding loan)		Surplus (+) or deficit (-)
	Loan indebtedness at 30 June	Wharfage and harbour dues	Total	Working expenses	Total including interest and redemption (a)	
Bowen	549	33	49	37	50	- 1
Bundaberg	6,083	611	990	234	945	+ 45
Cairns	6,803	620	1,469	587	1,265	+204
Gladstone	7,561	888	1,543	142	1,443	+100
Mackay	4,039	550	1,416	567	1,302	+114
Rockhampton	4,737	147	222	74	238	- 16
Townsville	8,851	1,154	2,629	599	2,534	+ 95
Total, 1968-69	38,623	4,003	8,318	2,240	7,777	+541
1967-68	37,173	3,480	7,296	2,080	7,117	+179
1966-67	36,384	3,109	8,372	1,876	8,201	+171
1965-66	35,436	2,524	8,862	1,792	9,088	-226
1964-65	33,824	2,412	6,337	1,398	6,169	+168

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

South Australia

Department of Marine and Harbours. All South Australian harbours are controlled by the Department of Marine and Harbours, which is responsible to the Minister of Marine for the discharge of its duties and functions. The most important ports are the six deep-sea ports of Port Adelaide, Port Pirie, Wallaroo, Port Lincoln, Port Giles and Thevenard. In South Australia there are also eight privately-owned and operated ports. The principal of these are Whyalla, Ardrossan, Rapid Bay, and Proper Bay (Broken Hill Pty Co. Ltd), Port Augusta (Commonwealth Railways) and Port Stanvac (Petroleum Refineries (Aust.) Pty Ltd). Maximum depths of water (low water) at the wharves of the main ports range from 27 feet at Port Pirie to 35 feet at Port Adelaide. The following table shows the finances of the Department for 1965-66 to 1969-70.

DEPARTMENT OF MARINE AND HARBOURS, SOUTH AUSTRALIA: FINANCES
1965-66 TO 1969-70
(\$'000)

Year	Loan indebtedness at 30 June	Expenditure from revenue				Surplus
		Revenue	Working expenses	Interest	Total	
1965-66	43,172	6,194	3,941	1,734	5,675	519
1966-67	44,264	6,734	4,019	1,807	5,827	907
1967-68	45,478	6,418	4,196	1,869	6,065	352
1968-69	47,614	6,653	4,365	1,957	6,322	331
1969-70	50,736	7,282	4,265	2,176	6,442	840

Western Australia

The Port of Fremantle is operated and controlled by the Fremantle Port Authority. The port covers an extensive water area of some 180 square miles and comprises an inner and an outer harbour. The inner harbour includes 20 deep-water land-backed berths, providing more than 665,450 square feet of covered storage space and 12,677 feet of wharf berth accommodation. All inner harbour berths are dredged to a low water depth of 36 feet. The outer harbour includes 3 main anchorages, Gage Roads, Owen Anchorage and Cockburn Sound. Deep-water jetties, including the oil refinery jetty in Cockburn Sound, are available in the outer harbour. Ocean-going deep draft ships enter the Sound by means of a channel dredged through Success and Parmelia Banks to a low water depth of 45 feet and a bottom width of 500 feet. In the outer harbour there are 3 tanker berths each with a low water depth of 44 feet at the Kwinana oil refinery, 2 berths at the nearby steelworks jetties with a low water depth of 38 feet, 2 berths at the alumina works jetty with a low water depth of 40 feet and 1 berth at the bulk cargo jetty with a low water depth of 44 feet. There is also a special

berth for the handling of explosives. Total effective berth accommodation in the outer harbour is 7,530 feet. Gross earnings for 1969-70 amounted to \$9,919,993, working expenses to \$6,946,102, interest charges on loan capital \$988,331, and loan indebtedness totalled \$22,538,912.

The *Port of Albany* is controlled by the Albany Port Authority. The depth of water in the entrance channel is 33 feet, at one arm of the jetty 31 feet and at the other arm 33 feet. In the approaches to wharf berths the depth is 33 feet. Berthing accommodation totals 3,363 feet, comprising 1,113 feet at the wharf berths and 2,250 feet at the Deepwater Jetty. Gross earnings for the year 1969-70 amounted to \$513,308, working expenses \$206,723, interest charges \$250,073, and loan indebtedness totalled \$4,713,327.

The *Port of Bunbury* is controlled by the Bunbury Port Authority. The depth of water in the harbour is 30 feet and berthing accommodation is 4,808 feet. Gross earnings for the year 1969-70 amounted to \$835,796, working expenses \$283,220, interest on loan capital \$397,138, and loan indebtedness totalled \$7,549,446.

The *Port of Esperance* is controlled by the Esperance Port Authority. Three berths provide a total length of 1,920 feet with a minimum depth alongside of 31 feet 6 inches. Bulk handling facilities are provided for petroleum products, grain, and minerals, including salt, nickel and copper. Gross earnings for the year 1969-70 were \$417,936, working expenses \$115,592, interest charges \$180,814, and loan indebtedness totalled \$4,177,726.

The *Port of Geraldton* is controlled by the Geraldton Port Authority. Four land-backed berths have a total length of 2,238 feet with a minimum depth alongside of 30 feet and a tide rise of 2 feet 6 inches. The grain terminal provides storage for 5,200,000 bushels and permits ships to be loaded at the rate of 800 tons per hour. The iron ore berth is associated with a privately-operated ore stockpile and automatic conveyor system with a rated capacity of 1,200 tons per hour. Gross earnings for the year 1969-70 were \$643,005, working expenses \$190,786, interest charges \$274,566, and loan indebtedness totalled \$5,511,687.

Other ports. The following ports are controlled by the State Government Harbour and Light Department: Broome, Busselton, Carnarvon, Derby, Onslow, Point Samson, Port Hedland, and Wyndham. Ports privately controlled comprise Yampi and Dampier, both operated by iron ore mining companies, and Exmouth, the port serving the communications installation at North West Cape. A private buoyed sea terminal is operated at Barrow Island for the shipment of crude oil, and private interests ship salt at Cape Cuvier, and salt and gypsum from Useless Loop in Shark Bay.

Tasmania

There are nine port authorities: the marine boards of Hobart, Devonport, Burnie, Circular Head (Stanley), King Island (Currie), Strahan and Flinders Island (Whitemark); also the Port of Launceston Authority and the Smithton Harbour Trust. The ports at Hobart, Launceston, Burnie and Devonport are terminals for overseas shipping. Port Latta in Circular Head's area is a specialised port for the shipment overseas of iron ore pellets, the loading point lying a mile out to sea in over 50 feet of water.

AUTHORITIES CONTROLLING PORTS, TASMANIA: FINANCES 1965-66 TO 1969-70 (\$'000)

Authority	Loan indebtedness at 30 June (a)	Receipts (revenue account) Total	Expenditure (revenue account)		Total (b)	Surplus (+) or deficit (-)	Loan expenditure
			Works and Services	Loan charges			
Hobart	3,394	1,896	979	357	1,688	+208	221
Launceston	5,200	2,090	1,326	447	2,102	- 12	1,009
Devonport	6,404	1,186	389	562	1,110	+ 76	598
Burnie	11,554	1,390	246	851	1,225	+165	1,259
Circular Head	501	76	14	49	75	+ 1	71
King Island	83	59	40	9	54	+ 5	2
Strahan	140	39	20	18	46	- 7	23
Flinders Island	189	29	36	7	46	- 17	203
Smithton . . . . .	..	1	1	..	3	- 2	..
Total, 1969-70	27,464	6,765	3,051	2,300	6,347	+418	3,386
1968-69	24,376	6,274	2,817	2,011	6,253	+ 21	4,574
1967-68	22,249	5,953	2,272	1,921	5,433	+520	2,395
1966-67	20,361	5,628	2,711	1,646	5,333	+295	2,184
1965-66	18,622	5,541	2,557	1,504	5,147	+394	1,846

(a) The total of new loans raised during 1969-70 was \$3,909,500, of which Hobart raised \$850,000, Launceston \$979,500, Devonport \$850,000, Burnie \$950,000, Circular Head \$85,000, Strahan \$130,000 and Flinders Island \$190,000.
(b) Includes expenditure not specified in component items.

Fire brigades

New South Wales

A Board of Fire Commissioners, consisting of six members, two appointed by the State Government (President and Deputy President) and one each representing insurance companies, local government authorities, volunteer firemen, and permanent firemen, operates under the Fire Brigades Act, 1909-1970, and 167 fire districts had been constituted at the end of 1969. 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.

At 31 December 1969 the actual strength of the Fire Brigade throughout the fire districts of New South Wales was 452 officers and 1,300 permanent and 2,673 volunteer firemen. Corresponding figures for the Sydney Fire District were 383, 1,194 and 257. The revenue for the year 1969 was \$11,913,000, as follows; from the Government \$1,471,000; municipalities and shires, \$1,471,000; fire insurance companies and firms, \$8,825,000; and from other sources, \$147,000. The disbursements for the year were \$11,913,000. 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, 1949-1970 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 30 June 1970 Volunteer Brigades equipped by means of this fund numbered 2,500 with an active membership of about 75,000 persons. The approved expenditure from the Fund for equipment, up to 30 June 1971, amounted to \$13,480,000.

Victoria

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 consisting of eleven members.

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. At 30 June 1970 the Board had under its control 45 stations, 1,166 permanent staff, and 266 special service and clerical, etc. staff. The total receipts for 1969-70 were \$8,306,184, comprising contributions \$7,204,800, receipts for services \$730,606, and interest and sundries \$370,778. The expenditure was \$8,386,393.

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, National Parks and certain Crown lands. The country area has been divided into twenty-five fire control regions, four of which (Ballarat, Bendigo, Geelong and the Dandenong, Chelsea and Frankston areas) 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 30 June 1970 the Country Fire Authority Act applied to 188 insurance companies and 211 urban and 1,050 rural fire brigades. The effective registered strength of the brigades was 112,635 members. Income for the year 1969-70 amounted to \$3,793,081. Total expenditure other than loan redemption and capital expenditure amounted to \$3,442,747.

Queensland

There are two controlling bodies responsible for fire fighting services throughout Queensland. The State Fire Services Council controls brigades set up under *The Fire Brigades Acts 1964 to 1966*, and the Rural Fires Board under provisions of *The Rural Fires Act, 1946 to 1968* administers Bush Fire Brigades. In addition a Local Authority may establish a fire fighting brigade of its own as do some major establishments such as the State Forestry Department and private companies whose activities involve fire hazards.

Fire districts are constituted under '*The Fire Brigades Acts, 1964 to 1966*'. 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-eighth, insurance companies three-quarters, and local authorities one-eighth. The insurance companies' contribution is paid to the State Government and thence to fire brigades.

At 30 June 1970 there were 81 Fire Brigade Boards. The number of stations was 178 and full-time staff numbered 1,181, comprising 62 administrative, 279 officers and 840 firemen. Volunteers numbered 34. Part-time staff numbered 1,224 comprising 68 administrative, 131 officers and 1,025

firemen. The total revenue for the year 1969–70 was \$6,725,740, received mainly from the following sources: Government \$805,699, local authorities \$805,699, insurance companies \$4,834,193. Loan receipts (Government and other) were \$357,413. The total expenditure for the year was \$6,534,476, the chief items being salaries and wages \$4,762,197, and interest and redemption of loans \$618,650.

The Rural Fires Board consists of a chairman and nine members all, except the one representing the United Graziers Association, are appointed by the Governor-in-Council from Government Departments and the Minister of Lands has power to add up to three additional members from the community as a whole. For administrative purposes the State is divided into Rural Fire Districts under the control of a Chief Fire Warden and in these districts Fire Wardens are appointed to assigned areas. These officers co-ordinate and control the Bush Fire Brigades on a voluntary basis. At 30 June 1970 there were 172 Rural Fire Districts with over 1,500 voluntary Fire Wardens and Bush Fire Brigades numbered 977. Expenditure by the State Government during 1969–70 amounted to \$79,259.

South Australia

The Fire Brigades Act, 1936–1958 provides for a board of five members, that 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, and that when the Treasury proportion exceeds its statutory contribution of approximately \$31,000, the excess is borne five-sevenths by insurance companies and two-sevenths by the municipalities. At 30 June 1970 there were altogether 38 fire brigade stations, of which 16 were metropolitan and 22 country.

The strength of the permanent staff at 30 June 1970 was 558, comprising 390 officers and men, 108 country auxiliary firemen and 60 other employees (including maintenance workers). The total revenue for the year 1969–70 was \$2,042,139, including contributions of \$1,755,540 made up as follows: insurance companies \$1,056,338, Treasury \$276,667 and municipalities \$422,535. The Treasury contribution includes a special grant of \$245,649.

Western Australia

By the provisions of the *Fire Brigades Act, 1942–1966* certain local government areas are constituted fire districts under the control of the Western Australian Fire Brigades Board. There were 59 fire districts at 30 June 1969. The contribution to the Board is made in the proportion of 16 per cent from the Government, 20 per cent from local government authorities, and 64 per cent from insurance companies. The number of local government authorities and insurance companies who contributed numbered 79 and 183 respectively. Fifteen permanent and two volunteer brigades operate in the metropolitan fire district centred on the City of Perth. Permanent brigade personnel serve with volunteer brigade personnel in five large country centres and volunteer brigades provide town fire protection at some fifty other centres. At 30 June 1970 the Board had 459 employees and there were 1,441 volunteer brigade officers and firemen. The revenue for the year ended 30 June 1970 was \$3,038,689 and the expenditure \$2,938,724.

Under the *Bush Fires Act, 1954–1970* a Bush Fires Board, consisting of thirteen members, six of whom are nominated by the Country Shire Councils' Association, was set up to advise the Minister for Lands on bush fire control and to administer the Bush Fires Act. The Act also provides for the registration of bush fire control officers, who numbered 2,371 at 30 June 1970, and the establishment of bush fire brigades, 948 at 30 June 1970. Many individual brigades are large organisations with numerous self-contained sections.

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 brigade boards, while leaving the responsibility for individual control and management with the boards. The Commission comprises the following: two persons nominated by the Minister; one person representing the City or Municipal Councils; one person nominated by the Chairman of the Rural Fires Board; and three persons representing the insurance companies. Contributions towards the cost of operations are on the basis of 22.5 per cent each from the Treasury and the municipalities and 55 per cent from the insurance companies concerned. The cost for the year 1969–70 amounted to \$1,105,361. There were, at 30 June 1970, 28 boards controlling 38 stations, and their aggregate staffs numbered 683 (officers and firemen), comprising 222 permanent firemen, 421 part-time firemen and 40 volunteers; the volunteers all operate under the Hobart Board in the forested and mountainous Fern Tree area.