

CHAPTER XIII.

LOCAL GOVERNMENT.

§ 1. Introduction.

1. **General.**—The statistics on Local Government operations are not entirely satisfactory, as they are incomplete, and not sufficiently comparable and up to date. Efforts are continually being made, however, as opportunity and circumstances permit, to improve them. Various returns supplied by State Statisticians, but discontinued during the war, have now been recommenced. In consequence, the matter in § 2 has been considerably advanced.

2. **Local Government Authorities.**—A description of the various systems of municipal government in the different States, and their development from the earliest date, was published in 1919 by this Bureau in a separate work entitled *Local Government in Australia*. In this publication the systems in force at that time are examined, the development of local government in Australia is traced since its inception, and all available statistical information is collected. The scope of the work includes those water supply, sewerage, drainage and irrigation boards, harbour and marine boards, and fire brigade boards, whose members are elective. Details are given of the various classes of authorities, their constitutions and powers, the qualifications required of electors and those elected, methods of valuation, rates, borrowing powers, revenue and expenditure, government grants, etc. A conspectus is appended of the acts in force relating to local government, together with acts relating to duties and functions which might be imposed on a local authority.

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

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

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

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

7. **Other Local Government Activity.**—The activities referred to above are not the only forms of local government undertakings. There are others, the most important being tramways and omnibus services and electric light and gas undertakings, whose control generally is less restricted to local government authorities. These are not dealt with in this chapter, except to the extent that they are represented in the finances as shown in the following section. Chapter V.—Transport and Communication contains information on municipal transport services, while particulars of electric light and gas undertakings, although not shown separately, are included in the relevant sections in Chapter XXIV.—Manufacturing Industry.

§ 2. Local Government Authorities.

1. **Area, Population and Value of Ratable Property.**—(i) *New South Wales.* For purposes of local government the whole of the Eastern and Central land divisions and a small portion of the sparsely populated Western division have been divided into municipalities (cities and principal towns) and shires (mainly large rural areas, some of which embrace important towns). At the end of 1945 the area incorporated was 184,000 square miles, or nearly three-fifths of the total area of the State.

The operations of the Capital City are regulated by the Sydney Corporation Act and of other municipalities and shires by the Local Government Act. Councils elected for a term of three years comprise: City of Sydney, 20 aldermen; City of Greater Newcastle, 21 aldermen; other municipalities, 6 to 15 aldermen; shires, 6 to 9 councillors.

Municipalities and shires may combine to form county councils for the establishment and conduct of services of joint benefit, e.g., electricity, water, sewerage. There were 13 county councils at 31st December, 1945.

The area, population and value of ratable property in the incorporated areas for the year ended 31st December, 1945, are given below. The valuations relate to ratable property only and exclude Government and other non-ratable property, whose value is not inconsiderable in the aggregate.

LOCAL GOVERNMENT AUTHORITIES, NEW SOUTH WALES: AREA, POPULATION AND VALUE OF RATABLE PROPERTY, 1945.

Local Bodies.	Number.	Area.	Population. (a)	Value of Ratable Property.		
				Unimproved Capital Value.	Improved Capital Value.	Assessed Annual Value.(b)
		Acres.		£'000.	£'000.	£'000.
Metropolitan—						
Capital City	1	3,220	95,952	50,286	174,972	7,874
Other	48	151,283	1,471,467	108,792	363,751	29,458
Total	49	154,503	1,567,419	159,078	538,723	37,332
Outside Metropolitan Area.	240	117,621,668	1,395,942	187,400	(c)	(c)
Grand Total	289	117,776,171	2,963,361	346,478	(c)	(c)

(a) As at Census, 30th June, 1947.
(c) Not available.

(b) Nine-tenths annual rental value of land with improvements thereon.
(d) Includes City of Greater Newcastle.

(ii) *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 in Westernport Bay and Julia Percy Island, off Port Fairy. Melbourne and Geelong were incorporated under special statutes prior to the establishment of a general system of local government, but are now subject to several provisions of the Local Government Act.

The financial years of the cities of Melbourne and Geelong, which, prior to 1938, ended on 31st December and 31st August respectively, now end, with those of all other municipalities, on 30th September. The area, population and value of ratable property in the incorporated areas are given below :—

LOCAL GOVERNMENT AUTHORITIES, VICTORIA : AREA, POPULATION AND ESTIMATED VALUE OF RATABLE PROPERTY.

Local Bodies.	Number.	Area 1940-41.	Population. (a)	Estimated Value of Ratable Property 1945-46.	
				Improved Capital Value.	Annual Value.
Metropolitan— Capital City	1	Acre. 7,740	99,868	£'000. 103,464	£'000. 5,173
Other(b)	28	160,906	1,116,932	326,910	17,682
Total	29	168,646	1,216,800	430,374	22,855
Outside Metropolitan Area (c) ..	168	56,074,895	834,463	317,659	15,916
Grand Total	197	56,243,541	2,051,263	748,033	38,771

(a) As at Census, 30th June, 1947.
of the City of Heidelberg.

(b) Includes the whole of the Shire of Braybrook and the whole of the Shires of Broadmeadows, Keilor and Mulgrave.

Particulars of the unimproved capital value are not available.

(iii) *Queensland.* The whole of the State (except certain islands along the coast, the Dawson Valley Irrigation Area and the Somerset Dam Area) is incorporated into cities, towns and shires under the Local Authorities Act 1902 and its amendments. The following table gives particulars of the area, population, and value of ratable property in the incorporated areas for the year 1944-45 :—

LOCAL GOVERNMENT AUTHORITIES, QUEENSLAND : AREA, POPULATION AND VALUE OF RATABLE PROPERTY, 1944-45.

Local Bodies.	Number.	Area.	Population. (a)	Unimproved Capital Value.
		Acre.		£'000.
Capital City	1	246,400	402,172	21,015
Outside Metropolitan Area	143	428,873,600	697,257	53,570
Total	144	429,120,000	1,099,429	74,585

(a) As at Census, 30th June, 1947.

Particulars of improved capital value and annual value are not available.

(iv) *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.

The following table gives the area, population and value of ratable property in incorporated areas for the year ended 30th June, 1946.

LOCAL GOVERNMENT AUTHORITIES, SOUTH AUSTRALIA : AREA, POPULATION AND VALUE OF RATABLE PROPERTY, 1945-46.

Local Bodies.	Number.	Area.	Population. (a)	Value of Ratable Property.		
				Unimproved Capital Value.	Improved Capital Value.	Annual Value.
Metropolitan—		Acres.		£'000.	£'000.	£'000.
Capital City	1	3,772	35,032	12,100	30,000	1,478
Other	20	99,215	347,572	(b)	85,000	4,265
Total	21	102,987	382,604	(b)	115,000	5,743
Outside Metropolitan Area	122	34,402,159	253,855	(b)	90,000	4,516
Grand Total ..	143	34,505,146	636,459	(b)	205,000	10,259

(a) As at Census, 30th June, 1947.

(b) Not available.

(v) *Western Australia.* In this State, Local Government is carried on by means of municipalities and district road boards. Certain functions are delegated to health boards, whose personnel, in most cases, coincides with those of the municipalities and district road boards. The following table gives particulars of the area, population and value of ratable property in incorporated areas for the year ended October, 1946 for municipalities, and the year ended June, 1946 for district road boards.

LOCAL GOVERNMENT AUTHORITIES, WESTERN AUSTRALIA : AREA, POPULATION AND VALUE OF RATABLE PROPERTY, 1945-46.

Local Bodies.	Number.	Area.	Population. (a)	Value of Ratable Property.		
				Unimproved Capital Value.	Improved Capital Value.	Annual Value.
Municipalities—		Acres.		£'000.	£'000.	£'000.
Metropolitan—						
Capital City ..	1	15,251	98,924	(b)	31,000	1,653
Other	8	11,374	71,165	(b)	13,738	728
Total	9	26,625	170,089	(b)	44,738	2,381
Outside Metropolitan Area	12	32,768	51,810	(b)	8,716	523
Total	21	59,393	221,899	(b)	53,454	2,904
District Road Boards—						
Metropolitan ..	11	(c) 322,880	102,497	4,089	(b)	14
Outside Metropolitan Area	116	624,206,720	175,047	18,071	(b)	489
Total	127	624,529,600	277,544	22,160	(b)	503
All Authorities—						
Metropolitan—						
Capital City ..	1	15,251	98,924	(b)	31,000	1,653
Other	19	334,254	173,662	(b)	(b)	742
Total	20	349,505	272,586	(b)	(b)	2,395
Outside Metropolitan Area	128	624,239,488	226,857	(b)	(b)	1,012
Grand Total ..	148	624,588,993	499,443	(b)	(b)	3,407

(a) As at Census, 30th June, 1947.

(b) Not available.

(c) Includes Swan District (235,264 acres) of which 8,064 acres only are in the Metropolitan Area.

The method of valuation is not identical in the case of all district road boards, as in some the assessment is based on the unimproved capital value and in others partly on the unimproved capital value and partly on the annual value. The amounts given are the totals for the areas rated on each valuation, and are not a function of each other.

(vi) *Tasmania*. The whole State is divided into municipal districts, Hobart and Launceston being incorporated under separate Acts. The following table gives particulars of the area, population and value of ratable property in incorporated areas for the year ended June, 1946.

LOCAL GOVERNMENT AUTHORITIES, TASMANIA : AREA, POPULATION AND VALUE OF RATABLE PROPERTY, 1945-46.

Local Bodies.	Number.	Area.	Population. (a)	Value of Ratable Property.		
				Unimproved Capital Value.	Improved Capital Value.	Annual Value.
Metropolitan— Capital City	1	Acres. 17,760	56,668	£'000. 5,178	£'000. 15,502	£'000. 975
Other (b) ..	2	99,000	19,767	1,132	3,443	238
Total ..	3	116,760	76,435	6,310	18,945	1,213
Outside Metropolitan Area ..	46	16,661,240	179,972	17,321	41,085	2,253
Grand Total ..	49	16,778,000	256,407	23,631	60,030	3,466

(a) As at Census, 30th June, 1947.

(b) Comprises the whole of the Municipalities of Clarence and Glenorchy.

2. **Finances.**—(i) *General*. As the result of resolutions adopted at a conference of Statisticians in 1936 the financial statistics of Local Government Authorities were compiled in the various States on a more comparable basis than formerly. The collection of this information was suspended in most States for the duration of the war, but has now been resumed. The tables following show the latest figures available, which, however, do not all relate to the same year.

(ii) *Ordinary Services*. (a) *Details*. In the returns of revenue and expenditure in the following table the proceeds from loans and expenditure thereof have been excluded, as have the operations of business undertakings controlled by the various Local Government Authorities. The profits resulting from the working of these undertakings, where taken into general revenue, have been included.

LOCAL GOVERNMENT AUTHORITIES : ORDINARY SERVICES, 1944-1946.

Particulars.	N.S.W. 1945. (a)	Victoria. 1945-46. (b)	Q'land. 1944-45. (c)	S. Aust. 1945-46. (c)	W. Aust. 1945-46. (d)	Tas. 1945-46. (c)
Number of Local Government Authorities	289	197	144	143	148	49

REVENUE (EXCLUDING LOAN RECEIPTS).

	£	£	£	£	£	£
Taxation—						
Rates (net)	6,063,698	4,266,359	2,921,586	1,019,992	720,429	426,346
Penalties	64,034	22,993			63	223
Licences	109,746	54,104	22,836	26,633	18,680	9,439
Total	6,237,478	4,343,456	2,944,422	1,046,625	739,172	436,008
Public Works and Services—						
Sanitary and Garbage Services	649,086	195,554	595,310	35,274	106,763	26,624
Council Properties	672,794	594,196	362,109	111,357	108,410	60,605
Street Construction	121,466	124,732	17,564	27,045	7,882	1,250
Other	291,278	98,433	19,036	32,360	13,901	10,090
Total	1,734,624	1,012,915	994,019	206,036	236,956	98,569
Government Grants—						
Unemployment Relief .. ..	..	..	..	7,940	..	..
Roads	900,714	75,550	307,197	(e) 220,111	25,288	6,696
Other	383,718	178,295	(f) 115,553	5,710	4,201	6,253
Total	1,284,432	253,845	422,750	233,761	29,489	12,949
Profits from Business Under- takings .. ..	..	212,355	19,788	..	50,330	..
Fees and Fines .. ..	..	15,090	196,560	18,436	297,516	50,419
All Other .. ..	..	66,936		49,422	87,907	
Total, Revenue	9,256,534	5,904,597	4,577,539	1,554,280	1,441,370	597,945

EXPENDITURE (EXCLUDING LOAN EXPENDITURE).

General Administration	724,749	797,216	327,780	171,116	172,744	75,306
Debt Services (excluding Business Undertakings)—						
Interest	641,225	361,310	589,469	23,718	55,817	19,435
Redemption	963,140	470,915	537,770	49,095	140,068	33,756
Exchange	25,913	..	94,209	..	2,277	631
Other	2,262	6,889	825	197	55	318
Total	1,632,540	839,114	1,222,093	73,010	198,217	54,140
Public Works and Services—						
Roads, Streets and Bridges	3,618,602	2,049,414	1,436,653	868,458	514,781	252,665
Health Administration	183,476	262,715	109,264	102,827	47,502	20,476
Sanitary and Garbage Services	905,989	404,521	401,660	107,556	151,251	31,671
Street Lighting	378,057	177,518	74,327	65,687	52,879	26,674
Council Properties	1,063,066	1,133,905	319,328	176,680	343,621	77,955
Other	214,552	56,923	(n) 289,721	56,900	33,004	13,827
Total	6,363,832	4,084,996	2,630,962	1,378,108	1,143,038	423,268
Grants—						
Fire Brigades	140,931	105,691	51,818	(h)	20,186	8,723
Hospitals and Ambulances .. ..	..	..	229,075	(h)	4,736	60
Other Charities	41,274	66,694	655	5,206	1,630	5,395
Other	(i) 225,262	(j) 295,419	10,554	3,135	1,210	725
Total	407,467	467,804	292,102	8,641	27,762	14,903
All Other	297,812	28,916	91,465	1,839	52,308	54,694
Total, Expenditure	9,426,400 less 165,619k 9,260,781	6,218,046	4,564,402	1,632,714	1,594,069	622,311

(a) Figures for New South Wales relate to the year ended 31st December, 1945, and are on an income and expenditure basis as distinct from those of other States, which are on a cash basis. (b) Year ended 30th September, 1946. (c) Year ended 30th June. (d) Municipalities—Year ended 31st October, 1946; Road Districts—Year ended 30th June, 1946. (e) Includes £8,065 reimbursements from Highways Departments for work done. (f) Includes £57,573 for sewerage and drainage. (g) Includes £83,964 for sewerage and drainage. (h) Compulsory contributions included under Public Works and Services. (i) To Main Roads Department. (j) Includes £120,545 to Country Roads Board. (k) This deduction offsets duplications caused by the inclusion above of particulars of expenditure on (i) the purchase from revenue of assets and the depreciation of those assets, and (ii) the depreciation of assets purchased from loans and the repayment of those loans. The amount deducted cannot be apportioned according to the various headings.

(b) Years 1938-39 and 1942-43 to 1945-46. The following table shows the revenue and expenditure (excluding loan) of local government authority ordinary services for the years 1938-39 and 1942-43 to 1945-46.

LOCAL GOVERNMENT AUTHORITIES : ORDINARY SERVICES.

Year.	N.S.W.(a)	Victoria.(b)	Q'land.	S. Aust.(c)	W. Aust.(d)	Tas.(e)	Total.
	£	£	£	£	£	£	
REVENUE (EXCLUDING LOAN RECEIPTS).							
1938-39 ..	10,657,409	6,070,551	(c)4,177,632	1,578,688	1,447,154	518,755	24,450,189
1942-43 ..	(e)	5,641,982	(e)	1,403,364	(f)1,382,105	530,876	(e)
1943-44 ..	(e)	5,566,219	(e)	1,368,639	(f)1,400,380	529,886	(e)
1944-45 ..	9,015,895	5,608,618	(c)4,577,539	1,408,048	(f)1,368,044	551,634	22,529,778
1945-46 ..	9,256,534	5,904,597	(e)	1,554,280	1,441,370	597,945	(e)
EXPENDITURE (EXCLUDING LOAN EXPENDITURE).							
1938-39 ..	10,790,273	6,192,859	(c)4,334,634	1,558,169	1,489,079	506,976	24,871,990
1942-43 ..	(e)	4,984,390	(e)	1,222,129	(f)1,237,193	514,291	(e)
1943-44 ..	(e)	5,106,856	(e)	1,283,542	(f)1,311,488	529,531	(e)
1944-45 ..	8,956,007	5,344,471	(c)4,564,402	1,385,934	(f)1,346,439	534,915	22,132,188
1945-46 ..	9,260,781	6,218,046	(e)	1,632,714	1,594,069	622,311	(e)

(a) Years ended previous 31st December. (b) Years ended 30th September. (c) Years ended 30th June. (d) Municipalities—Years ended 31st October; Road Districts—Years ended 30th June. (e) Not available. (f) Includes loan receipts and expenditure of Local Boards of Health.

(iii) *Business Undertakings.* (a) *Details.* The table hereunder shows the latest particulars available 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, 1944-1946.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.
	1945.	1945-46.	1944-45.	1945-46.	1945-46.	1945-46.
REVENUE (EXCLUDING LOAN RECEIPTS).						
	£	£	£	£	£	£
Water Supply and Sewerage—						
Rates ..	556,775	(a)	12,484	..	5,635	172,479
Charges for Services and Sales of Products ..	205,579	(a)	1,390,608	936	7,374	50,498
Other (Including Grants) ..	(b)182,303	(a)	(c)107,534	..	1,628	33,391
Total ..	944,657	57,003	1,510,626	936	14,637	256,368
Electricity and Gas—						
Rates ..	39,990	(a)	10,542	..	..	..
Charges for Services and Sales of Products ..	7,976,066	(a)	1,595,826	166,841	1,216,320	13,138
Other (Including Grants) ..	85,820	(a)	123,352	4,829	11,430	657
Total ..	8,101,876	2,469,491	1,729,720	171,670	1,227,750	13,795
Railways, Tramways and Omnibuses—						
Rates ..	..	(a)	3,319	..	..	..
Charges for Services and Sales of Products ..	..	(a)	1,539,786	..	485	315,591
Other (Including Grants) ..	..	(a)	81,876	..	..	1,377
Total ..	..	10,018	1,624,975	..	485	316,968
Other—	(d)	(e)	..	(f)	(g)	(h)
Rates ..	..	(a)	..	..	..	111
Charges for Services and Sales of Products ..	534,874	(a)	..	9,369	14,042	15,223
Other (Including Grants) ..	1,605	(a)	..	892	2,491	864
Total ..	536,479	154,655	..	10,261	16,533	16,198
Grand Total ..	9,583,012	2,691,167	4,865,321	182,867	1,259,405	603,329

NOTE.—See next page for notes.

LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS,

1944-1946.—*continued.*

Particulars.	N.S.W. 1945.	Victoria. 1945-46.	Q'land. 1944-45.	S. Aust. 1945-46.	W. Aust. 1945-46.	Tas. 1945-46.
EXPENDITURE (EXCLUDING LOAN EXPENDITURE).						
	£	£	£	£	£	£
Water Supply and Sewerage—						
Working Expenses	434,388	(a)	478,947	743	4,617	68,664
Depreciation	14,109	(a)	..	..	..	..
Debt Charges	390,953	(a)	821,297	..	10,231	149,738
Other (including Transfers to General Revenue and Con- struction)	12,093	(a)	170,312	..	..	28,105
Total	823,325	55,564	1,470,556	743	14,848	246,507
Electricity and Gas—						
Working Expenses	5,201,086	(a)	1,056,180	120,753	954,002	10,421
Depreciation	918,172	(a)	..	..	101,825	..
Debt Charges	1,310,243	(a)	286,243	7,879	48,187	39
Other (including Transfers to General Revenue and Con- struction)	305,577	(a)	241,085	24,788	41,310	50
Total	7,735,078	2,417,181	1,583,508	153,420	1,145,324	10,510
Railways, Tramways and Omni- buses—						
Working Expenses .. ..	..	(a)	936,267	..	504	215,656
Depreciation .. ..	..	(a)	..	..	..	..
Debt Charges .. ..	..	(a)	228,437	..	..	52,483
Other (including Transfers to General Revenue and Construction) .. ..	..	(a)	164,988	..	..	51,439
Total .. ..	..	9,336	1,329,692	..	504	319,578
Other—	(d)	(e)		(f)	(g)	(h)
Working Expenses	491,300	(a)	..	8,258	13,663	11,117
Depreciation	402	(a)	..	..	394	..
Debt Charges	17,863	(a)	..	1	413	3,669
Other (including Transfers to General Revenue and Con- struction)	213	(a)	..	515	2,000	2,122
Total	509,778	186,649	..	8,774	16,470	16,908
Grand Total	9,068,181	2,668,730	4,383,756	162,937	1,177,146	593,503

(a) Not available separately.

(b) Includes £63,213 Government grant for part of cost of new works borne by Government.

(c) Includes Government subsidy of loans.

(d) Abattoirs and

Ice Works.

(e) Hydraulic Power Undertaking, Quarries and Abattoirs.

(f) Quarries.

(g) Quarries, Ice Works, Cinema and Abattoirs.

(h) Abattoirs.

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

(b) Years 1938-39 and 1942-43 to 1945-46. This table shows the revenue and expenditure, other than loan, of local government business undertakings for the years 1938-39 and 1942-43 to 1945-46.

LOCAL GOVERNMENT AUTHORITIES : BUSINESS UNDERTAKINGS.

Year.	N.S.W.(a) £	Victoria.(b) £	Q'land. £	S. Aust.(c) £	W. Aust.(d) £	Tas.(e) £	Total £
REVENUE (EXCLUDING LOAN RECEPTS).							
1938-39 ..	6,405,010	1,813,796	(c)3,373,966	113,132	962,470	528,461	13,196,835
1942-43 ..	(e)	2,420,520	(e)	145,352	1,006,726	659,157	(e)
1943-44 ..	(e)	2,510,079	(e)	153,072	1,079,175	682,766	(e)
1944-45 ..	9,323,148	2,674,803	(c)4,865,321	174,422	1,137,903	595,984	18,771,581
1945-46 ..	9,583,012	2,691,167	(e)	182,867	1,259,405	603,329	(e)

EXPENDITURE (EXCLUDING LOAN EXPENDITURE).							
1938-39 ..	5,556,123	1,802,972	(c)3,256,263	123,356	935,052	513,666	12,187,432
1942-43 ..	(e)	2,339,587	(e)	130,398	970,982	628,917	(e)
1943-44 ..	(e)	2,429,326	(e)	146,579	1,031,757	655,381	(e)
1944-45 ..	8,805,878	2,515,912	(c)4,383,756	154,161	1,076,958	574,770	17,511,435
1945-46 ..	9,068,181	2,668,730	(e)	162,937	1,177,146	593,503	(e)

NOTE.—See notes to corresponding table on Ordinary Services.

(iv) *Loan Expenditure.* (a) *Details.* The table below shows particulars for the latest year available of loan expenditure on works connected with the ordinary services and the business undertakings of local government authorities.

LOCAL GOVERNMENT AUTHORITIES : LOAN EXPENDITURE ON WORKS, 1944-46.

Particulars.	N.S.W. 1945.	Victoria. 1945-46.	Q'land. 1944-45.	S. Aust. 1945-46.	W. Aust. 1945-46.	Tas. 1945-46.
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ORDINARY SERVICES.

	£	£	£	£	£	£
Roads, Bridges, Streets, Foot- paths, Drainage and Sewerage	43,693	57,122	64,212	23,864	14,601	} 25,141
Council Properties	35,615	12,571	3,735	20,518	5,745	
Parks, Gardens and Recrea- tional Reserves	60,565	7,651	..	..	..
Other	4,695	37,477	24,284	..	5,000	
Total	144,568	114,821	92,231	44,382	25,346		25,141

BUSINESS UNDERTAKINGS.

	£	£	£	£	£	£
Water Supply	133,635	4,917	154,306	..	..	} 43,978
Sewerage	6,761	..	13,029	..	..
Electricity and Gas	259,114	202,467	54,324	..	2,500	
Railways, Tramways and Omni- buses .. ..	..	..	..	..	..
Other	26,376	3,981	..	..	..
Total	425,886	211,365	221,659	..	2,500	43,978
Grand Total	570,454	326,186	313,890	44,382	27,846	69,119

(b) Years 1938-39 and 1942-43 to 1945-46. The following table shows the loan expenditure on works connected with local government ordinary services and business undertakings during the years 1938-39 and 1942-43 to 1945-46.

LOCAL GOVERNMENT AUTHORITIES : LOAN EXPENDITURE ON WORKS.

Year.	N.S.W.(a)	Victoria.(b)	Q'land.	S. Aust.(c)	W. Aust.(d)	Tas.(e)	Total.
ORDINARY SERVICES.							
	£	£	£	£	£	£	£
1938-39 ..	1,757,704	662,986	(e) 1,316,651	43,479	117,172	39,481	3,937,473
1942-43 ..	(e)	59,384	(e)	2,668	(f) 2,205	1,976	(e)
1943-44 ..	(e)	69,509	(e)	689	(f) 1,494	4,272	(e)
1944-45 ..	93,220	(e)	(c) 92,231	10,925	(e)	16,727	(e)
1945-46 ..	144,568	114,821	(e)	44,382	25,346	25,141	(e)

BUSINESS UNDERTAKINGS.

	£	£	£	£	£	£	£
1938-39 ..	1,481,484	452,374	(c) 941,911	9,542	76,280	232,687	3,194,278
1942-43 ..	(e)	132,461	(e)	..	(f) 1,500	124,081	(e)
1943-44 ..	(e)	89,417	(e)	..	(f)	92,811	(e)
1944-45 ..	419,180	(e)	(c) 221,659	4,500	(e)	97,228	(e)
1945-46 ..	425,886	211,365	(e)	..	2,500	43,978	(e)

(a) Years ended previous 31st December. (b) Years ended 30th September. (c) Years ended 30th June. (d) Municipalities—Years ended 31st October; Road Districts—Years ended 30th June. (e) Not available. (f) Excludes Local Boards of Health.

3. **Local and Semi-Governmental Authorities' Debt.**—Previous issues of the Official Year Book (see No. 36, page 595) have contained particulars of Local and Semi-Governmental Debt up to and including 1940-41. Similar information is not yet available for later years, but it is hoped to include it in the next issue. A summary of the debt of municipal and semi-governmental bodies to persons and institutions other than central Governments at 30th June, 1947 is shown in Chapter XV.—Public Finance, C, para. 3 (v).

§ 3. Roads and Bridges.

1. **New South Wales.**—(i) *General.* A central road authority was created by legislation early in 1925 for the purpose of providing improved and uniform standards of construction and maintenance of the principal roads, and to administer Governmental subsidies for work on those roads. The funds of this authority (now the Department of Main Roads) are derived principally from taxation of motor vehicles, contributions by the Commonwealth Government from the proceeds of a tax on petrol, direct contributions by municipal and shire councils, and special (not statutory) assistance by the State Government by way of loan moneys or special grants from revenue funds. See paragraph (iii) (b) for details of receipts and payments.

The Main Roads Department exercises control over Governmental activities in connexion with road works, these activities embracing works on main and developmental roads throughout the State, all roads in the unincorporated portion of the Western Division, and proclaimed national works, principally bridges and ferries, constructed from Government funds. The department co-operates with the municipal and shire

councils in the work of constructing and maintaining a well-organized system of main highways. Assistance is granted by the department in respect of the following five classes of roads :—

State Highways.—Roads which are principal avenues of communication between the coast and the interior or throughout the State, and connect with such avenues in other States.

Trunk Roads.—Roads which, being secondary avenues of road communication, form with the State Highways the framework of general system of intercommunication throughout the State.

Ordinary Main Roads.—Roads which are used principally by through traffic as the means of intercommunication between towns or important centres of population and which, with the State Highways and Trunk Roads, form part of the general system of road communication throughout the State.

Secondary Roads.—Roads in the metropolitan area of Sydney which carry a substantial amount of through traffic and relieve neighbouring main roads of traffic which they would otherwise have to bear.

Developmental Roads.—Roads which serve to develop a district or area of land by improving or providing access to a railway station or a shipping wharf, or to a road leading to a railway station or a shipping wharf.

In the Eastern Division of the State assistance is given to local councils for works on classified roads. For other roads the cost of both construction and maintenance work is generally chargeable to the revenue of local authorities, although Governmental assistance is not infrequently granted for works of construction and reconstruction. In the Western Division the full cost of all roads and bridges is met by the Department of Main Roads.

The length of roads maintained by the Department of Main Roads at 30th June, 1946 (excluding the Western Division) was 2,561 miles (15 per cent.), while the length maintained by Councils was 14,642 miles (85 per cent.).

In the Western Division 7,706 miles (excluding 18 miles maintained by the Bourke and Broken Hill Municipal Councils) were maintained by the Department.

(ii) *Length of Roads.* The following particulars show lengths of road according to (a) type of road and (b) composition :—

(a) Type.		(b) Composition.	
Eastern Division—		Miles.	
Proclaimed Roads (30th June, 1946)—	Miles.	(30th June, 1939)	
State Highways ..	5,147	Wood block	32
Trunk Roads ..	2,367	Cement concrete	332
Ordinary Main Roads	9,611	Asphaltic concrete	248
Secondary Roads ..	78	Tar or bituminous macadam	3,282
Developmental Roads	2,749	Surfaced water-bound macadam or gravel	2,591
		Water-bound macadam	3,684
		Gravel or crushed rock	27,037
Total ..	19,952	Formed only	25,091
		Cleared or natural surface only	63,761
Minor Roads (30th June, 1939)	98,339		
Western Division (30th June, 1946)	7,905		
Total ..	126,196	Total	126,058

(iii) *Main Roads Department. (a) General.* An amendment to the Main Roads Act in 1945 provides for the co-ordination between public authorities in the construction of new road projects estimated to cost over £5,000. Shire, municipal and government departments will be required to submit details of these projects to the Commissioner for Main Roads in order to co-ordinate councils' road works with the planned development of the State main roads system. Provision was also made for the Department to exercise greater control, in the interest of safety, over advertising signs on main roads, and for the referring to the Department of proposed new road connexions with main roads in order to avoid unnecessary junctions. Other provisions relate to a new classification of main roads as "motor ways", and to the proclamation of main road reserves.

In December, 1944, the Department of Main Roads organization, after completion of the work allotted to it, was withdrawn from the Northern Territory, where it had played an important part in the construction of the north-south road (Stuart Highway) connecting Alice Springs and Darwin. The following summary shows the main road works carried out there in each of the years 1940 to 1944 :—

1940.—Construction of Dunmara-Larrimah portion of road, 86.5 miles.

1941.—Construction of major part of road Darwin-Adelaide River, 68.5 miles, to a standard to meet military requirements.

1942.—Construction of road Adelaide River-Katherine, 148 miles, including bridges south of Katherine.

1943.—Maintenance of Darwin-Larrimah section, 332 miles, and bituminous surfacing of part of the road.

1944.—Construction of access roads to aerodromes and completion of bituminous resurfacing and surfacing of road from Darwin towards Pine Creek, 114 miles.

The total cost of the works carried out by the Department in the Northern Territory during the period 1940 to 1944 was £2,784,000.

Despite efforts to commence works of construction or reconstruction on main roads in the County of Cumberland, progress during 1945-46 was incon siderable because of causes arising out of the war. In the country, preference was given chiefly to works which had been in hand, but were discontinued because of the war. Maintenance work was carried out as well as shortages and high costs of certain materials permitted, and a limited number of developmental works was commenced. Special defence works were carried out on a reduced scale during 1945-46, and the Department undertook to construct streets of access to dwellings being erected by the State Housing Commission.

Investigation and planning to provide for the present and future needs of road traffic in the County of Cumberland, in Newcastle and district, and in the Wollongong-Port Kembla district which was commenced in 1943 with very limited staff, was continued during 1945-46.

(b) *Receipts and Payments.* The receipts and payments of the Department of Main Roads for the four years 1942-43 to 1945-46 compared with the income and expenditure for 1938-39 are shown below. The particulars include extensive defence works, whose

cost to 30th June, 1946 amounted to £7,546,158, constructed in New South Wales and elsewhere on behalf of the Commonwealth Government. Commencing with the year 1941-42 a change was made to a receipts and payments system of accounting:—

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

Item.	1938-39. (a)	1942-43.	1943-44.	1944-45.	1945-46.
RECEIPTS.					
	£	£	£	£	£
Motor Tax Fees, etc.	2,018,555	1,644,126	1,758,057	1,845,377	2,024,947
Petrol Taxation (Federal Aid Roads and Works Acts)	1,176,039	440,031	143,958	536,509	873,425
Councils' direct contributions	250,679	242,052	237,972	242,021	222,097
Loans from State Government	302,643	50,000	..	..	300,000
Contributions from Revenue, State Government . . . . .	..	-1,461	-2,320	-4,830	1,007
Commonwealth Funds for Defence Works . . . . .	..	3,776,425	2,033,340	633,312	77,337
Hire of Plant and Motor Vehicles . . . . .	..	220,306	206,999	161,662	131,389
Suspense Accounts . . . . .	..	..	3,966	73,636	..
Other	68,332	193,821	211,889	136,713	141,082
Total	3,816,248	6,565,300	4,593,861	3,624,400	3,771,284
PAYMENTS.					
	£	£	£	£	£
Roads and Bridges in New South Wales—					
Construction	61,736,898	596,302	465,007	444,164	561,185
Maintenance	61,519,929	1,121,456	1,552,390	1,609,678	1,811,500
Debt Charges—					
Interest, Exchange, etc.	152,469	178,499	164,672	163,656	152,129
Sinking Fund and Repayments	200,591	129,735	150,234	101,940	97,495
Defence Works (c)	(b)	3,717,719	1,343,043	989,603	186,327
Suspense Accounts . . . . .	..	135,747	7,525	..	67,822
Administration, etc.	(b) 101,497	319,235	376,680	373,889	600,785
Total	3,711,384	6,198,693	4,059,641	3,682,930	3,477,243

(a) Income and expenditure. (b) Not fully comparable with corresponding figures in following years. (c) Includes maintenance and construction, respectively, of roads and bridges outside New South Wales—£665,091 and £2,661,572 to 30th June, 1946.

The figures shown above represent the aggregate receipts and payments of three funds—the County of Cumberland Main Roads Fund, the Country Main Roads Fund and the Developmental Roads Fund. From 1st January, 1925 to 30th June, 1946, receipts amounted to £77,330,727 and payments to £74,729,342. Particulars of the individual funds are—County of Cumberland, receipts £21,706,585, payments £20,137,133; Country, £52,410,721, £51,423,810; Developmental, £3,213,421, £3,168,399.

The total expenditure on roads, streets and bridges in the State by all authorities during the years 1938-39 and 1942-43 to 1945-46 was, respectively, £8,894,099, £3,614,502, £4,251,306, £4,606,189 and £5,251,638. These figures are approximate, and, for the years 1942-43 and 1943-44, subject to revision. They include expenditure on construction, maintenance and direct administration, but not on debt charges. Expenditure on the Sydney Harbour Bridge is not included.

(c) *Sydney Harbour Bridge.* The Sydney Harbour Bridge was opened for traffic on 19th March, 1932. The main span is 1,650 feet and the clearance for shipping 170 feet from high water level. The deck, 160 feet wide, carries a roadway, two railway tracks and two tramway tracks, and there is also a footway on each side. The capital cost of the bridge to the 30th June, 1946, was £9,746,329, but this amount will be reduced by approximately £138,000 upon the disposal of all surplus resumed property. The portion met from repayable loan funds, over £8,000,000, is to be repaid over a period of 53 years, ending approximately in 1985. The accumulated balance of the Bridge Account to 30th June, 1946, showed a deficiency of £545,241. The following table shows income and expenditure for the years 1938-39 and 1942-43 to 1945-46 :—

SYDNEY HARBOUR BRIDGE, NEW SOUTH WALES : INCOME AND EXPENDITURE.

Item.	1938-39.	1942-43.	1943-44.	1944-45.	1945-46.
INCOME.					
	£	£	£	£	£
Road Tolls	278,297	126,411	131,156	150,370	225,554
Railway Passenger Tolls	103,697	111,336	116,184	119,253	134,005
Tram and Omnibus Passenger Tolls	38,738	24,404	24,886	25,401	25,547
Other	8,366	8,810	9,009	7,518	8,621
Total	429,098	270,961	281,235	302,542	393,727
EXPENDITURE.					
	£	£	£	£	£
Maintenance and Improvement	36,739	25,485	24,135	24,889	32,013
Special War Expenditure .. .. .	..	15,891	8,811	2,788	563
Interest, Exchange, etc.	334,797	319,423	313,663	315,300	309,286
Sinking Fund	40,564	52,279	55,097	65,465	66,608
Other	12,194	10,642	11,063	11,434	12,737
Total	424,294	423,720	412,769	419,876	421,207

During 1945-46, 25,899,000 rail travellers, 23,299,000 tram and omnibus travellers, and 9,779,000 road travellers in 5,515,000 road vehicles crossed the bridge.

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

(ii) *Length of Roads and Streets.* The approximate length of all roads and streets in Victoria at the end of 1945, according to composition, was as follows:—

	Miles.
Wood or stone	67
Portland cement concrete	146
Asphaltic concrete and sheet asphalt	223
Tar or bitumen surface seal	8,973
Waterbound macadam, gravel, sand and hard loam pavements	26,062
Formed only	24,842
Surveyed only	43,085
Total	(a) 103,398

(a) Includes 2,909 miles State Highways.

(iii) *Country Roads Board. (a) General.* The end of the war brought about a reduction in the expenditure on defence works carried out by the Victorian Country Roads Board. The total expenditure on these works to 30th June, 1946, was £6,135,537, of which £2,454,534 was spent on works in Central Australia and Northern Territory. The works included the strengthening and sealing of the North-South Road (Stuart Highway), aerodrome construction, and surfacing at various places.

Reconstruction and maintenance of State highways and main roads were restricted during 1945-46 because of post-war difficulties, and the work done was confined strictly to what was essential. Provision was made for linking up sections of developmental roads on which funds had already been spent, and for completing short lengths of road of an urgent nature.

(b) *Receipts and Payments.* Funds created under the Act were the Country Roads Board Fund, the Loan Account and the Developmental Roads Loan Account. Particulars of the operations of these funds, together with those of the Federal Aid Roads and Works Account, are given hereunder:—

Country Roads Board Fund. All fees (other than fees for licences to drive motor cars) and fines under the Motor Car Act, and all registration fees and fines for traction engines, less cost of collection of such fees and fines, are credited to this fund. Particulars of receipts and payments connected with Commonwealth Defence Works are not included therein, but some detail on expenditure may be found on the following page. The total receipts and payments for the years 1938-39 and 1942-43 to 1945-46 were as follows:—

COUNTRY ROADS BOARD FUND, VICTORIA : RECEIPTS AND PAYMENTS.

Item.	1938-39.	1942-43.	1943-44.	1944-45.	1945-46.
RECEIPTS.					
	£	£	£	£	£
Fees, etc., Motor Car Act	1,690,962	1,248,426	1,344,524	1,395,225	1,558,480
Municipalities' Payments	318,878	244,756	225,653	241,764	264,506
Stores and Materials	233,104	286,366	270,121	254,451	214,569
Hire of Plant	53,724	58,627	104,333	108,647	98,782
Other	117,341	272,398	224,287	125,636	173,227
Total	2,414,009	2,110,573	2,168,918	2,125,723	2,309,564

COUNTRY ROADS BOARD FUND, VICTORIA: RECEIPTS AND PAYMENTS—*continued.*

Item.	1938-39.	1942-43.	1943-44.	1944-45.	1945-46.
PAYMENTS.					
	£	£	£	£	£
Maintenance of Roads and Murray River Bridges and Punts ..	1,205,069	521,588	649,275	737,812	836,707
Relief to Municipalities ..	240,170	221,040	221,040	221,040	221,040
Interest, Sinking Fund, etc.— Recoup to Consolidated Revenue—					
Interest, etc.	282,484	317,683	317,352	315,790	311,769
Sinking Fund	25,794	25,786	25,717	25,567	25,424
Municipalities' Repayments, etc.	119,167	111,258	109,604	107,975	106,413
Plant, Stores and Materials ..	310,332	445,614	336,844	314,686	479,371
Other (including Administration)	230,125	289,364	287,918	183,979	318,365
Total	2,413,141	1,932,333	1,947,750	1,906,849	2,299,089

Country Roads Board Loan Account. Loans have been authorized from time to time under the Country Roads Acts for permanent works on main roads and State highways. During the years ended 30th June, 1945 and 1946 there were no transactions. The total expenditure to 30th June, 1946, was £5,047,126.

Developmental Roads Loan Account. This fund was created for the purpose of constructing and maintaining subsidiary or developmental roads. Loan moneys raised were exhausted at 30th June, 1937, the total expenditure at that date being £6,425,757.

Federal Aid Roads and Works Account. Revenue and expenditure in respect of the Federal Aid Roads and Works Account, particulars of which are not included above, were as follows:—

Item.	1938-39.	1942-43.	1943-44.	1944-45.	1945-46.
	£	£	£	£	£
Revenue	716,019	276,883	309,748	370,789	548,934
Expenditure	781,088	136,682	158,555	235,419	234,386

Total Expenditure. The total expenditure by the Board on road construction and maintenance during each of the five years 1938-39 and 1942-43 to 1945-46 was as follows:—

COUNTRY ROADS BOARD: EXPENDITURE ON ROADS.

Item.	1938-39.	1942-43.	1943-44.	1944-45.	1945-46.
	£	£	£	£	£
State Highways (a)	453,708	203,964	240,729	251,048	261,956
Main Roads (a)	1,027,210	329,544	422,888	534,500	591,118
Developmental Roads (a) ..	468,122	88,920	94,526	153,081	148,588
Tourists' Roads (a)	77,694	27,880	44,479	30,487	53,786
Forests' Roads .. ..	..	..	..	..	8,021
Murray River Bridges and Punts	4,067	2,555	3,635	4,115	7,623
Roads adjoining Commonwealth Areas	13,321	5,407	1,572	3,598	381
Unemployment Relief	54,662	20	..	..	..
Commonwealth Defence Works—					
Unemployment Relief .. ..	..	9,443	5,106	1	..
Northern Territory .. ..	..	670,102	894,436	751,341	6,758
Allied Works Council .. ..	..	43,842	20,991	Cr. 25,962	Cr. 14,072
Total	2,098,784	1,381,677	1,728,362	1,702,209	1,064,159

(a) Includes amounts contributed by the Commonwealth Government under the provisions of the Federal Aid Roads and Works Acts.

3. **Queensland.**—(i) *General.* Under the Main Roads Act 1920 a Main Roads Board was constituted, consisting of three members appointed by the Governor-in-Council. In 1925 the Board was abolished and its powers conferred upon a single Commissioner. The duties of the Commissioner are to carry out surveys and investigations necessary to determine State highways, main, developmental, secondary, farmers', mining access and tourist roads or tourist tracks, and, under certain circumstances, to undertake their construction and maintenance. With the exception of State highways, mining access roads or tourist tracks, no road can be proclaimed until the Commission has considered any objections thereto lodged by interested local authorities.

Certain major roads are constructed and maintained by the Main Roads Commission with assistance from the local authorities, while roads of local importance are constructed and maintained solely by these authorities. In many cases construction is subsidized by the State Government by means of Treasury loans. Other roads are built by the Public Estate Improvement Branch of the Lands Department in order to open up areas of previously inaccessible or undeveloped country.

(ii) *Length of Roads.* The total length of roads and streets in Queensland at 30th June, 1946, was—

	Miles.					
Concrete	71
Bitumen	3,328
Macadam	7,209
Other formed	42,998
Unconstructed	78,603
Total	132,209

Roads gazetted by the Main Roads Commission as at 30th June, 1946, and their respective lengths were:—State highways, 6,983 miles; main roads, 9,932 miles; developmental roads, 244 miles; tourist roads, 247 miles; other roads, 1,033 miles; total, 18,439 miles.

(iii) *Main Roads Commission. (a) General.* Among the more important defence road works carried out by the Queensland Main Roads Commission was the construction of the middle section (99 miles) of the Birdum-Tennant Creek Road (304 miles), in the Northern Territory, the remainder of the road being built by the Department of Main Roads, New South Wales (the northern 85 miles), and the Highways Department, South Australia (the southern 120 miles). The new route of the North-South Road, whose entire length from Alice Springs to Darwin is 954 miles, was constructed as far as possible on sounder, higher and better drained country than the old route, which generally followed the overland telegraph line over open plain country. The Queensland section was constructed in 88 days, the total cost being about £64,000. The total cost of the entire road was £2,840,000. Another important road work was the construction of the Tennant Creek (N.T.)-Mount Isa (Qld.) Road (403 miles). Preliminary work of clearing and formation of the 286 miles from Camooweal on the Queensland border to the junction with the North-South Road was completed in 52 working days, and metalling was commenced before the entry of Japan into the war. The construction of the section in Queensland from Mount Isa to Camooweal had been previously under way, but the organization on this job had been reinforced and transferred across the border to complete the Northern Territory section first. The advent of the Japanese into the war made necessary a first-class all-weather highway, and in March, 1942 the organization was

built up to meet the new conditions. The gravelling of the whole length was completed in February, 1943, and the bitumen surfacing in April, 1944. Construction included the erection of eight bridges on major water-ways, concrete slab crossings of all other important creeks, and the sinking and equipping of 22 bores. The cost of the road was £1,100,000. Other defence road work was the construction of the Ipswich-Duaringa section of the Inland Defence Road (the portion from Duaringa to Charters Towers being constructed by the Department of Main Roads, New South Wales), the Charleville-Blackall Road, the Banana-Gladstone Road, and the Toowoomba-Landsborough lateral defence road, all forming part of the strategic road construction plan. The Inland Defence Road, 875 miles in length, cost £2,127,000, and the Charleville-Blackall Road, 187 miles, cost about £285,000. The other two roads were each about 80 or 90 miles long. In addition to these roads, about 200 miles of roads, at an approximate cost of £350,000, were constructed on the Atherton Tablelands.

Apart from road works, extensive work was carried out in the construction and maintenance of aerodromes, a flying-boat base, landing-strips, shipping slipways, jetties, gun emplacements and ammunition storages. A graving dock, involving the expenditure of over £1,000,000, was constructed on the Brisbane River. With the cessation of hostilities in the Pacific, works for the Services and the Commonwealth practically ceased, although a few jobs, principally at aerodromes, have since been requested.

The extent of the Commission's activities can be gauged by the following figures of disbursements in connexion with defence work, including the purchase of plant and materials, during the years 1939-40 to 1945-46, and the total to 30th June, 1946:—

						£
1939-40	..	..	..	..	..	284,000
1940-41	..	..	..	..	..	303,000
1941-42	..	..	..	..	..	2,197,000
1942-43	..	..	..	..	..	10,576,000
1943-44	..	..	..	..	..	12,001,000
1944-45	..	..	..	..	..	2,760,000
1945-46	..	..	..	..	..	792,000
						28,913,000
Total	..	..	..	..	..	28,913,000

During 1945-46 (1944-45 in brackets), the Commission completed 107 (122) miles of new roadway, while 68 (89) miles of previously improved road were further improved in process of stage construction. At the end of the year a programme involving 243 (150) miles of new work, and 292 (152) miles of stage construction was in hand or authorized. The total length of road constructed from the inception of Main Roads operations to 30th June, 1946 (1945 in brackets) was 8,424 (8,316) miles. Bridges of all types to a length of 2,120 (1,621) lineal feet were constructed during 1945-46 (1944-45), bringing the total constructed by the Commission to 137,807 (135,687) feet, approximately 26 miles. In addition, at 30th June, 1946 (1945), 4,635 (2,450) feet were under construction.

The total mileage of roads controlled by the Commission at 30th June, 1946 (1945) was 18,439 (17,183).

(b) *Receipts and Payments.* The funds of the Main Roads Commission are obtained chiefly from motor vehicle registration and transport licensing fees, contributions from

the Federal Aid Roads and Works Fund, loans from the State Treasury, and the Developmental Works and Projects Fund. The total receipts and payments, including amounts for defence works, during each of the years 1938-39 and 1942-43 to 1945-46 are shown below:—

MAIN ROADS COMMISSION, QUEENSLAND: RECEIPTS AND PAYMENTS.

Item.	1938-39.	1942-43.	1943-44.	1944-45.	1945-46.
RECEIPTS.					
	£	£	£	£	£
Motor Vehicle Registration Fees, Transport Licensing Fees, Endorsement Fees, etc.	938,227	739,319	809,384	835,109	962,601
Treasury Payments (including Loans)	972,000	975,244	1,288,891	868,755	818,730
Federal Aid Roads and Works Acts	806,218	301,979	337,152	402,229	596,564
Commonwealth and Allied Defence Works . . . . .	..	11,115,819	8,769,411	2,418,722	464,892
Maintenance Repayments—Local Authorities	98,154	116,018	93,368	103,660	138,133
Other	288,330	153,000	157,478	169,484	178,123
Total	3,102,929	13,401,379	11,455,684	4,797,959	3,159,043
PAYMENTS.					
	£	£	£	£	£
Road Works and Surveys	2,045,900	1,059,312	457,892	602,102	668,484
Maintenance of Roads	331,734	308,772	368,002	643,411	639,612
Port Development Works . . . . .	..	314,019	403,730	158,799	46,910
Plant, Machinery, Buildings, etc. (including Plant Maintenance)	73,963	687,753	Cr. 81,451	114,330	341,438
Redemption—Main Roads Loans Interest	38,861	84,667	96,981	289,691	314,353
..	78,153	152,920	169,368		
Payments to State Consolidated Revenue	340,244	78,127	85,432	93,637	107,837
Payments to Local Authorities	27,418	22,205	25,183	29,709	32,782
Commonwealth and Allied Defence Works . . . . .	..	9,373,576	9,267,982	2,378,099	721,174
Administration, etc.	149,619	185,991	175,281	174,686	209,441
Other	1,750	981	2,941	44,029	92,549
Total	3,087,642	12,268,323	10,971,341	4,528,493	3,174,580

4. South Australia.—(i) *General.* The Highways Act 1926-44 created a Commissioner of Highways and provided for a Highways Fund. The Commissioner is virtually empowered to determine upon which main roads he will spend the moneys available; in doing which he has to take into account (a) the moneys voted or likely to be voted by Parliament for main roads; (b) whether the road is or will be the main trunk route (i) connecting with its market or nearest port or railway station any large producing area or any area capable of becoming in the near future a large producing area, (ii) connecting two or more large producing areas, or areas capable of becoming in the near future large

producing areas, or between two or more large centres of population, (iii) between the capital and any large producing area or any large centre of population, (iv) between the capital of the State and that of any other State; and (c) whether the area through which the road passes is, or in the near future will be, sufficiently served by a railway or railways.

After providing for certain fixed charges the Highways Fund is credited with the balance received from (a) licence fees and registration fees under the Road Traffic Act 1934-44; (b) fees for hawkers' licences; and (c) all loans raised and appropriated for roads. All moneys received by the State from the Commonwealth under the Federal Aid Roads and Works scheme are also expended by the Commissioner of Highways under the general provisions of the Highways Act.

(ii) *Length of Roads.* The total length of roads in use for general traffic within local governing areas at 30th June, 1946, was as follows:—

	Miles.
Wood or stone paved	9
Bituminous or cement concrete	294
Bituminous or cement penetration	2,122
Tar paved, metalled or gravelled	14,640
Formed only	8,823
Surveyed but not formed	26,310
Total	52,198

Of this total 7,554 are main roads and 44,644 district roads. The Highways Department has improved 2,250 miles to modern types.

(iii) *State Highways and Local Government Department.* (a) *General.* During the war the South Australian Highways and Local Government Department, in common with other State road organizations, carried out considerable road and other defence work on behalf of the Commonwealth. The cost of this work, which was reimbursed by the Commonwealth, was as follows:—

	£		£
1940-41	190,032	1944-45	46,588
1941-42	563,796	1945-46	2,723
1942-43	527,352		
1943-44	62,796	Total	1,393,287

The various projects undertaken included work on the North-South and East-West Roads.

A programme has been prepared of road works proposed to be carried out during the period of five years after the cessation of hostilities. This provides for the reconstruction of approximately 2,850 miles of main roads throughout the State at an estimated cost of more than £3,000,000, the greater proportion of which will be provided from motor vehicle taxation. The programme includes (i) the realignment and widening of roads constructed in the early stages of the first five-year plan (prepared in 1936, but suspended because of the war), now below the accepted standard necessary for modern traffic, (ii) the construction or reconstruction of existing unimproved main roads, and (iii) the construction of roads to assist development in the newer settled areas, with particular reference to the south-eastern part of the State. Heavy plant is being acquired for these purposes, and it is expected that the work will be well on the way at an early date.

(b) *Receipts and Payments.* The following table shows particulars of receipts and payments during the years 1942-43 to 1945-46 of funds controlled by the Highways and Local Government Department. Comparable figures for 1938-39 are not available.

STATE ROADS (ALL FUNDS COMBINED), SOUTH AUSTRALIA: RECEIPTS AND PAYMENTS.

Item.	1942-43.	1943-44.	1944-45.	1945-46.
RECEIPTS.				
	£	£	£	£
Motor Vehicle Registrations, Fees, Fines, etc.	532,310	541,088	569,380	612,349
Federal Aid Roads and Works Acts	180,706	203,292	241,112	354,050
Commonwealth Defence Road Works (a)	14,898	6,079	428	..
Recoups—Local and Semi-governmental Authorities	1,731	5,900	9,923	1,945
Suspense Accounts—Plant, Machinery, etc.	100,829	..	..	..
Other	3,623	3,110	4,914	5,318
Total	834,097	759,469	825,757	973,662
PAYMENTS.				
	£	£	£	£
Construction of Roads and Bridges	126,503	210,001	219,961	270,936
Maintenance	116,125	129,958	112,635	123,047
Recoups to Consolidated Revenue Fund—Interest, Sinking Fund and Exchange	188,307	186,677	184,322	177,295
Grants to Local and Semi-governmental Authorities	120,452	141,318	174,106	211,575
Administration	31,160	31,434	33,134	40,971
Suspense Accounts . . . . .	..	13,806	23,820	90,657
Other	1,363	1,494	1,441	1,652
Total	583,910	714,688	749,420	916,133

(a) Part only. See above.

The total expenditure, both revenue and loan, by State and local governments on roads, streets and bridges in South Australia during the years 1938-39 and 1942-43 to 1945-46 was, respectively, £1,966,000, £953,000, £1,141,000, £1,198,000 and £1,461,000.

5. Western Australia.—(i) *General.* In Western Australia the construction, maintenance and management of roads, streets and bridges are the functions of Municipalities and Road Districts.

(ii) *Length of Roads and Streets.* Certain principal highways and developmental roads are proclaimed main roads under the control of the Commissioner of Main Roads, appointed under the Main Roads Act 1930-39. The total known length of streets and roads in existence in the various Municipalities at 31st October, 1946, and in Road Districts at 30th June, 1946, was as follows:—

	Miles.
Concrete	5
Bituminous	2,925
Granite, limestone, etc., waterbound	321
Gravel waterbound	9,742
Other constructed surfaces	232
Formed only	27,286
Unprepared	(a) 33,737
Total	74,248

(a) Incomplete.

During the war the East-West Road (Forrest Highway) was built, at a cost of £300,000. The road is 1,074 miles long and connects Port Augusta, South Australia to Norseman, Western Australia. Work was also carried out on the Meekatharra-Marble Bar Road, 462 miles, connecting the railway town of Meekatharra to the rail-head at Marble Bar. The work consisted mainly of strengthening the existing road, deviating where necessary, and raising it in certain parts.

(iii) *Receipts and Payments.* The following table shows the combined transactions of the Main Roads Contributions Trust Account, the Metropolitan Traffic Trust Account, the Transport Co-ordination Fund and the Federal Aid Roads and Works Account during the years ended 30th June, 1939 and 1943 to 1946.

ROAD FUNDS, WESTERN AUSTRALIA : RECEIPTS AND PAYMENTS.

Item.	1938-39.	1942-43.	1943-44.	1944-45.	1945-46.
RECEIPTS.					
	£	£	£	£	£
Motor Vehicle Licence Fees and Permits—					
Metropolitan Traffic Trust Account	197,951	152,913	150,228	157,133	152,593
Transport Co-ordination Fund	21,011	31,267	31,940	33,478	37,166
Commonwealth Grant—Federal Aid Roads and Works	823,162	320,043	334,017	399,434	594,787
Other (a)	1,958	1,227	1,770	-18,386	620
Total	1,044,082	505,450	517,955	571,659	785,166
PAYMENTS.					
	£	£	£	£	£
Road Construction, Maintenance, Surveys, etc.	922,756	167,188	190,591	268,216	353,508
Distributions to Local and Statutory Authorities	143,544	116,183	115,415	113,842	126,686
National Debt Commission Sinking Fund	17,623	17,623	..	..	..
Transfer to State Consolidated Revenue .. .. .	..	26,861	28,942	30,696	33,643
Interest, Sinking Fund and Premiums—State Treasury	7,616	7,616	7,616	7,616	7,616
Administration, Plant, etc.	52,176	35,519	25,103	25,079	24,863
Other	1,558	2,721	2,563	2,589	2,788
Total	1,145,273	373,711	370,230	448,038	549,104

(a) Includes net transfers to and from other funds.

6. *Tasmania.*—(i) *General.* In Tasmania the cost of construction of roads and bridges is borne almost entirely by the State Government. During 1945-46 the expenditure of the Public Works Department on roads, tracks and bridges amounted to £347,767, of which £314,715 was charged to road funds, £16,640 to revenue, £15,889 to loan, and £523 to crown lands funds. Roads were amongst the large range of defence works, valued at £1,604,925, carried out by the Department during the war. Others included water supply, sewerage and drainage, buildings, aerodrome construction, ship repair and construction and fuel storage.

Under the Transport Act 1938, which came into operation on 1st July, 1939, the Transport Commission was constituted to co-ordinate, regulate, control, and improve the means of, and facilities for, transport by road, rail or air within the State. Revenues at its disposal for road and motor traffic purposes are the Federal Aid Roads and Works Grant, motor vehicle registration fees and tax, and licensing fees for drivers and public

motor vehicles. Under the Roads and Jetties Act 1944, which provides for the classification of the whole of the roads of the State so that they will be adequately and efficiently maintained, the cost of maintenance of roads classified as State highways, tourist roads and developmental roads will be borne by the Transport Commission. It will also be responsible for a proportion of the cost of maintenance of main and secondary roads. Municipal councils will bear the cost of maintaining country roads and a proportion of the cost of main and secondary roads, except in special cases. Roads controlled by the Commission at 30th June, 1946, were : State highways, 1,199 miles, main roads, 647 miles, secondary roads, 136 miles, tourist roads, 50 miles, developmental roads, 11 miles, total 2,043 miles.

(ii) *Length of Roads.* The length of all roads in Tasmania, including those with surfaces of lower grade, at 30th June, 1942, was as follows :—

	Miles.
Sheet asphalt on concrete base	1
Other bituminous	788
Concrete	6
Granite, limestone, etc., waterbound	4,797
Surfaces of lower grade	6,794
Total	12,386

(iii) *Receipts and Payments.* The table hereunder shows particulars of the receipts and payments of the combined Road Fund and Federal Aid Roads and Works Funds under the control of the Transport Commission for the years 1939-40 and 1942-43 to 1945-46 :—

ROAD FUNDS, TASMANIA : RECEIPTS AND PAYMENTS.

Item.	1939-40.	1942-43.	1943-44.	1944-45.	1945-46.
RECEIPTS.					
	£	£	£	£	£
Motor Vehicle Registrations, Drivers' Licences and Motor Tax	193,165	179,361	194,306	204,685	219,486
Federal Aid Roads and Works Acts	220,241	76,448	87,271	105,032	155,416
Hire of Plant .. .. .	..	16,104	15,628	73,183	..
Miscellaneous	719	6,489	9,664	12,737	19,650
Total	414,125	278,402	306,869	395,637	394,552
PAYMENTS.					
	£	£	£	£	£
Construction and Reconstruction of Roads	127,929	34,292	29,733	71,636	150,959
Maintenance and Improvement of State Highways	113,199	102,960	120,503	178,642	164,438
Renewals and Repairs of Bridges and Maintenance of Jetties	22,467	18,474	31,811		
Other Road Works	2,995	47	709		
Other Works connected with Transport	5,748	7,735	8,045		
Administration	15,053	13,981	14,893	28,375	39,725
Miscellaneous	31,894	25,418	62,145	88,262	7,632
Total	319,285	202,907	267,839	366,915	377,924

(iv) *Hobart Bridge.* Under the Hobart Bridge (Acquisition and Administration) Act 1944 the Transport Commission has been responsible for the administration, control and management of the Hobart Bridge and transport services since 11th December, 1944. Receipts from bridge tolls from that date to 30th June, 1945 amounted to £13,306, and expenditure to £4,003. Capital expenditure amounted to £31,264. Corresponding figures for 1945-46 were £29,349, £8,065 and £22,641.

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

The data in the table are compiled from publications of the State Government Statisticians, and are derived mainly from local government sources. They therefore exclude the Territories of the Commonwealth and probably unincorporated areas in some States. Furthermore, the figures on the returns supplied by the local government authorities are in some cases of doubtful accuracy. Details of the composition of roads, as far as they are available, vary to such an extent between States that it was considered preferable to show here only major divisions, rather than to attempt greater dissection, which would have resulted either in a lengthy total column incomplete for most of its items, or, by the expedient of "forcing", in some mixed classes of little value. Even the broad classes shown suffer somewhat from this latter defect, but not to an extent sufficient to mar the table as a whole.

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

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

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

It will be noticed that some of the terms used above are practically synonymous. Such terms are, of course, not used by any one State, but are the classifications adopted by different States. This variety of classification is responsible, too, for some irregular grouping.

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

MILEAGE OF ROADS USED FOR GENERAL TRAFFIC.

Composition of Road.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	30th June, 1939.	31st Dec., 1945.	30th June, 1946.	30th June, 1946.	31st Oct., and 30th June, 1946. (a)	30th June, 1942.	
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1. Wood or stone ..	32	67	..	9	..	..	108
2. Concrete ..	580	369	71	294	5	7	1,326
3. Bituminous ..	5,873	8,973	3,328	2,122	2,925	788	24,009
4. Macadam and other ..	30,721	26,062	7,209	14,640	10,295	4,797	93,724
5. Formed only ..	25,091	24,842	42,998	8,823	27,286	(b)2,274	131,314
6. Cleared, or natural surface, only ..	63,761	43,085	78,603	26,310	33,737	(b)4,520	250,016
Total ..	126,058	103,398	132,209	52,198	74,248	12,386	500,497

(a) Municipalities and Road Districts respectively.

(b) Approximate.

It will be seen from the foregoing table that less than one-quarter of the road lengths of Australia has actually been constructed, the remainder, for the greater part, being in little more than the natural state. The percentages for each group are as follows:—Group 1, 0.02; Group 2, 0.26; Group 3, 4.80; Group 4, 18.73; Group 5, 26.24; Group 6, 49.95. The percentage of constructed lengths to total length in each State is as follows:—New South Wales, 29; Victoria, 34; Queensland, 8; South Australia, 33; Western Australia, 18; Tasmania, 45. Comparisons between the States should be made with caution, however, because, in addition to the defects enumerated at the beginning of this section, factors such as the area, physiography, density and distribution of population, nature of economic activity, other facilities for transport, etc., in each State must be taken into account.

8. Summary of Expenditure on Roads and Bridges.—(i) *General.* Figures showing the total expenditure on roads and bridges in all States are not available. Such totals are very difficult to obtain, not only because of the number of States, but also because of the number of authorities concerned. In most States there are three classes of authorities—the State Government, the central road authority, and the numerous local government bodies. Both State Government and local government bodies operate through revenue and loan funds, and payments may be made by the State Government direct from either fund, or through the funds of other authorities. The expenditure of the central road authority may also be direct or indirect. Consequently the problem of duplication caused by inter-fund payments arises. On the other hand, some expenditure may be omitted because separate particulars are not available, or they may be overlooked by the compiler. Ignorance of the precise nature of items may cause either incorrect inclusion or omission. To produce accurate figures would entail more research than at present can be undertaken.

The two paragraphs following therefore represent only: (i) aggregate expenditure from the various State road funds referred to in the foregoing pages, and (ii) loan fund expenditure by State Governments. No direct expenditure by local government bodies is included. Sub-section 2. Finances, of the foregoing section on local government authorities, contains some particulars of local government revenue and expenditure in connexion with roads, streets and bridges (*see* pages 518 and 521).

(ii) *Aggregate Expenditure from Road Funds.* The following table shows the expenditure on the construction and maintenance of roads, including payments to local government bodies, by each State during the years 1938-39 and 1942-43 to 1945-46, as summarized from the foregoing sections. Expenditure on administration, debt charges, Commonwealth defence works, payments to State consolidated revenues, and on plant and materials is not included.

ROADS AND BRIDGES : AGGREGATE EXPENDITURE FROM ROAD FUNDS.

Year ended 30th June—	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1939 ..	3,257	2,099	2,405	692	1,067	(b) 272	9,792
1943 ..	1,718	658	1,390	363	283	164	4,576
1944 ..	2,017	808	851	481	306	191	4,654
1945 ..	2,054	977	1,275	507	382	250	5,445
1946 ..	2,373	1,071	1,341	605	480	331	6,201

(a) Excludes Sydney Harbour Bridge.

(b) Year 1939-40.

The figures above are not completely comparable as between States, and, in some States, as from year to year.

(iii) *State Net Loan Expenditure.* The following table shows the net loan expenditure by State Governments on roads and bridges during the years 1938-39 and 1942-43 to 1945-46, and also the aggregates to 30th June, 1946. Some of the expenditure included here is also included in the previous table.

ROADS AND BRIDGES : STATE NET LOAN EXPENDITURE.

Year ended 30th June—	N.S.W.	Victoria.(a)	Q'land.(b)	S. Aust.(c)	W. Aust.	Tasmania. (d)	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1939 ..	1,850	Cr. 22	357	200	145	141	2,671
1943 ..	10	Cr. 30	Cr. 13	Cr. 17	..	20	Cr. 30
1944 ..	Cr. 69	Cr. 31	164	Cr. 16	..	30	78
1945 ..	Cr. 43	Cr. 21	85	Cr. 17	..	16	20
1946 ..	284	Cr. 26	309	Cr. 16	..	16	567
Total to 30/6/46	21,097	(e) 12,667	7,058	3,809	3,183	5,855	53,669

(a) Represents expenditure from loan and on account of loan. (b) Amounts include relative expenditure by the Public Estate Improvement Branch. (c) Excludes credits arising from cancellation of securities redeemed from Sinking Fund. (d) Actual amounts expended by Department of Public Works. (e) Gross loan expenditure.

The loan expenditure shown above does not represent the total expenditure on roads and bridges. It relates for the most part to capital expenditure on new works, and it must be supplemented by similar expenditure from loan funds of local bodies and by expenditure by central road authorities and also from State revenues.

§ 4. Water Supply, Sewerage and Drainage.

i. New South Wales.—(i) *General.* The largest two domestic water supply and sewerage systems are controlled by statutory boards consisting of a president and a vice-president appointed by the State Government and other members elected by local councils. These are (a) the Metropolitan Water, Sewerage and Drainage Board, which administers the systems in the County of Cumberland, i.e., in Sydney and in the surrounding districts, and, in addition, has jurisdiction over territory extending along the South Coast beyond Wollongong to Lake Illawarra, and (b) the Hunter District Water Board, serving the Newcastle area. At Broken Hill a similar board includes a representative of the mining companies. At the end of 1944 five county councils had been created with authority to supply water to towns in constituent municipalities and shires, one of them being also empowered to conduct a sewerage system. Other systems, apart from irrigation projects and water storage systems administered by the State Government, are controlled by municipal and shire councils.

(ii) *Water Supply—to 30th June, 1946.* (a) *Metropolitan.* The storage reservoirs of the metropolitan system, with a combined capacity of 125,144 million gallons, drain a catchment area of 376 square miles. Water is drawn also from the Warragamba River, with a catchment of 3,383 square miles. This system is being developed, and proposals exist for a dam to be built to a height of 342 feet above bed level, giving a safe draught of 260 million gallons per day. The existing temporary storage is supplied by a weir 50 feet high, with a maximum daily off-take of 40 million gallons. At 30th June, 1946, there were 93 service reservoirs with a combined capacity of 537.6 million gallons, and the length of mains was 4,656.8 miles.

(b) *Newcastle.* The water supply is drawn from two sources (1) the Chichester Reservoir, with a storage capacity of about 5,000 million gallons and draining a catchment of 76 square miles, and (2) the Tomago Sandbeds, which extend northerly along the coast towards Port Stephens. About 30 square miles of water-bearing sand at present being tapped are expected to give a continuous yield of 15 million gallons a day. Service reservoirs distributed throughout the Water Supply District number 42, with a total storage capacity of 106 million gallons. The total length of mains at 30th June, 1946, was 1,098 miles.

(c) *Water Supplied, etc.* The following table gives the number of improved properties, the estimated population supplied, and other details for the years 1944-45 and 1945-46 :—

WATER SUPPLY, SYDNEY(a) AND NEWCASTLE : SERVICES.

System.	Improved Properties for which Water Main available.	Estimated Population Supplied.	Average Daily Supply.	Total Supply for the Year.	Average Daily Supply.	
					Per Property.	Per Head of Estimated Population.
	No.		Million Gallons.	Million Gallons.	Gallons.	Gallons.
Sydney (a)—						
1944-45 ..	374,660	1,596,647	112.6	41,107	301	71.2
1945-46 ..	378,277	1,628,269	121.7	44,437	322	74.8
Newcastle—						
1944-45 ..	54,015	214,184	17.6	6,413	325	81.4
1945-46 ..	55,171	217,956	17.6	6,413	319	80.1

(a) Includes part of South Coast.

(iii) *Sewerage and Drainage—to 30th June, 1946.* (a) *Metropolitan.* The Sydney sewerage system consists mainly of three outfall systems discharging into the Pacific Ocean. At 30th June, 1946, there were six individual outfalls and six treatment works connected with 2,780 miles of sewers, and serving a population of 1,178,064 persons.

Stormwater drainage channels under the Metropolitan Water, Sewerage and Drainage Board's control at the same date were 99 miles long.

(b) *Newcastle.* The main sewerage system of the Newcastle area discharges into the Pacific Ocean at Merewether Gulf. In some of the outlying districts treatment works have been installed. There were 37 miles of stormwater drains at 30th June, 1946.

(c) *Particulars of Services.* The following table supplies details of sewerage services and stormwater drains as at 30th June, 1945 and 1946.

SEWERAGE AND DRAINAGE, SYDNEY(a) AND NEWCASTLE : SERVICES.

System—at 30th June:	Improved Properties for which Sewer Available.	Population Served.	Length of Sewers.	Length of Storm-water Drains.
	No.		Miles.	Miles.
Sydney(a)—				
1945	281,957	1,160,523	2,760	93
1946	283,364	1,178,064	2,780	99
Newcastle—				
1945	(b) 37,614	(c) 144,500	575	37
1946	(b) 38,632	(c) 144,500	580	37

(a) Includes part of South Coast. (b) Premises connected. (c) At 30th June, 1944.

(iv) *Finances.* The following statement shows the debt, revenue and expenditure on account of the services of water supply, sewerage and drainage during 1944-45 and 1945-46.

WATER SUPPLY, SEWERAGE AND DRAINAGE, SYDNEY(a) AND NEWCASTLE : FINANCES.

Item.	Capital Debt.	Revenue.	Expenditure.			Surplus or Deficit.	
			Working Expenses. (b)	Interest and Exchange.	Sinking Fund.		Total Expenditure.
1944-45.							
Sydney (a)—	£	£	£	£	£	£	
Water ..	28,307,128	2,276,923	932,837	1,120,967	210,304	2,264,108	+ 12,815
Sewerage ..	17,165,633	1,379,075	556,470	711,856	119,984	1,388,310	- 9,235
Drainage ..	860,903	75,300	28,132	38,248	5,152	71,532	+ 3,768
Total ..	46,333,664	3,731,298	1,517,439	1,871,071	335,440	3,723,950	+ 7,348
Newcastle—							
Water ..	4,235,703	311,202	157,765	159,481	25,443	342,689	- 31,487
Sewerage ..	2,251,003	190,088	97,676	89,606	122,795	200,077	- 9,989
Drainage ..	121,278	19,195	9,556	5,811	801	16,168	+ 3,027
Total ..	6,607,984	520,485	264,997	254,898	39,039	558,934	- 38,449
1945-46.							
Sydney (a)—	£	£	£	£	£	£	
Water ..	28,767,586	2,376,692	1,020,510	1,135,190	215,566	2,371,266	+ 5,426
Sewerage ..	17,456,989	1,398,300	560,952	713,385	139,298	1,396,635	+ 1,665
Drainage ..	899,805	77,175	29,646	38,681	5,170	73,497	+ 3,678
Total ..	47,124,380	3,852,167	1,611,108	1,887,256	343,034	3,841,398	+ 10,769
Newcastle—							
Water ..	4,363,202	313,459	127,940	166,564	26,567	321,071	- 7,612
Sewerage ..	2,302,257	189,739	79,422	90,636	13,189	183,247	+ 6,492
Drainage ..	129,258	19,375	4,693	6,092	869	11,654	+ 7,721
Total ..	6,794,717	522,573	212,055	263,292	40,625	515,972	+ 6,601

(a) Includes part of South Coast. (b) Includes provision for renewals, long service leave, loss on exchange, etc.

(v) *Country Water Supply and Sewerage Systems**. The capital indebtedness of the country water and sewerage schemes controlled by municipalities, shires and county councils was £6,923,754 at 31st December, 1944, namely, £4,265,076 for water and £2,658,678 for sewerage. Of the foregoing amounts, Government advances amounted to £631,680. Debt of the municipalities amounted to £5,352,826, shires to £1,032,902 and county councils to £538,026. At 31st December, 1944, country water supply services were in operation or under construction in 76 municipalities, 44 shires and four county councils and country sewerage services in 53 municipalities and 11 shires.

The following country water supply systems—South-West Tablelands, Junee and Fish River—are administered by the Department of Public Works. These supply water in bulk to municipalities and shires, the Railways Department, and other large consumers; only a small quantity is sold directly to private consumers. The capital indebtedness of these systems was £2,102,084 at 31st December, 1946.

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

A water supply system at Broken Hill was transferred from the control of the then Department of Works and Local Government (now the Department of Public Works) to a special Board on 1st January, 1939. Capital debt owing to the State was written off and the Board commenced to raise loans on its own behalf to finance the construction of water amplification works and sewerage services. The debenture debt was £334,625 at 31st December, 1946.

2. *Victoria.*—(i) *Melbourne and Metropolitan Board of Works.* (a) *General.* All land within a radius of 13 miles of the Post Office at the corner of Bourke and Elizabeth-streets, Melbourne, and the remaining portions of the Cities of Mordialloc, Moorabbin and Nunawading and certain portions of the Shires of Eltham, Doncaster, and Templestowe, and Dandenong (all of which portions are outside such radius), but excluding a portion of the Shire of Werribee within such radius, are included in the metropolis for water supply, sewerage, main drainage and river improvement purposes. This territory has an area of 443 square miles and comprises 27 cities and parts of one other city and 10 shires. The Board comprises 48 members, including the chairman, who is elected every four years by the other members. These members, or commissioners, are from time to time elected by the councils of the municipal districts wholly or partly within the metropolis. The principal functions of the Board are to control and manage the metropolitan water supply system; to provide the metropolis with an efficient system of main and general sewerage; to deal with main drains and main drainage works; and to control and manage the rivers, creeks and watercourses within the metropolis.

A summary of the combined financial results of the operations of the Board is shown below in respect of the years 1944-45 and 1945-46 :—

MELBOURNE AND METROPOLITAN BOARD OF WORKS : FINANCES.

Year.	Capital Debt.	Revenue.	Expenditure.					Total.
			Working Expenses.	Interest and Exchange.	Sinking Fund.	Depreciation, Renewals, Reserves and Other Funds.	Other.	
	£	£	£	£	£	£	£	£
1944-45	25,971,165	2,407,094	570,392	1,271,585	64,928	438,169	43,965	2,389,039
1945-46	25,971,165	2,309,505	718,087	1,263,123	64,928	259,555	33,071	2,338,764

* Excludes the area of operation of the Hunter District Water Board (Newcastle).

In the following tables showing particulars of the finances of each of the various services, exchange, sinking fund, depreciation, renewal, etc., charges against General Revenue Account amounting to £593,475 in 1944-45 and to £404,350 in 1945-46 have not been included.

(b) *Water Supply.* The following table gives particulars of water supply services for 1944-45 and 1945-46. The rate levied in 1945-46 was 6d. in the £1 on the net annual value of the property served.

WATER SUPPLY, MELBOURNE : SERVICES.

Year.	Number of Properties Supplied.	Estimated Population Supplied.	Average Daily Consumption.	Total Water Consumption for the Year.	Average Daily Consumption.		Length of Mains, Reticulation, etc.
					Per Property.	Per Head of Estimated Population.	
			Million Gallons.	Million Gallons.	Gallons.	Gallons.	Miles.
1944-45 ..	305,730	1,213,748	96.2	35,107	315	79.2	3,492
1945-46 ..	308,731	1,225,662	78.4	28,611	254	64.0	3,539

The financial operations of the Melbourne water supply system for the years 1944-45 and 1945-46 are shown below. The total capital cost to 30th June, 1945, was £13,179,202 and to 30th June, 1946, £13,347,341.

WATER SUPPLY, MELBOURNE : FINANCES.

Year.	Increase in Capital Cost.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest.	Surplus.
	£	£	£	%	£	£
1944-45 ..	77,335	1,133,575	259,974	22.93	549,621	323,980
1945-46 ..	168,139	1,033,524	359,930	34.83	545,452	128,142

(c) *Sewerage.* Particulars of sewerage services for 1944-45 and 1945-46 are given below. The rate levied in 1945-46 was 1s. in the £1 on the net annual value of the property served.

SEWERAGE, MELBOURNE : SERVICES.

Year.	Number of Buildings for which Sewers are Provided.	Estimated Population for which Sewers are Provided.	Average Daily Pumping.	Total Sewage Pumped for the Year.	Average Daily Pumping.		Length of Sewers, etc.
					Per Building.	Per Head of Estimated Population.	
			Million Gallons.	Million Gallons.	Gallons.	Gallons.	Miles.
1944-45 ..	288,921	1,147,016	54.9	20,047	190.1	47.9	2,721
1945-46 ..	291,536	1,157,398	56.4	20,582	193.5	48.7	2,749

The financial operations of the Melbourne sewerage system for the years 1944-45 and 1945-46, including those of the Metropolitan Sewage Farm, are given below. The total capital cost to 30th June, 1945, was £14,822,548 and £15,034,000 to 30th June, 1946.

SEWERAGE, MELBOURNE : FINANCES.

Year.	Increase in Capital Cost.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest.	Surplus.
	£	£	£	%	£	£
1944-45 ..	68,111	1,173,711	288,882	24.61	618,002	266,827
1945-46 ..	211,452	1,173,265	332,783	28.36	612,749	227,733

The total area of the Metropolitan Sewage Farm at 30th June, 1946 was 24,579 acres. The following table gives financial details of its operations for the years 1944-45 and 1945-46. The total capital cost to 30th June, 1945, was £1,372,337 and to 30th June, 1946, £1,421,947.

METROPOLITAN SEWAGE FARM : FINANCES.

(Included in Sewerage Finances.)

Year.	Increase in Capital Cost.	Revenue.	Cost of Sewage Disposal.	Other Working Expenses.	Interest.	Net Cost of Sewage Purification.
	£	£	£	£	£	£
1944-45 ..	33,231	66,383	60,047	28,451	56,415	78,530
1945-46 ..	49,610	45,311	69,618	36,039	56,571	116,917

(d) *Drainage and Rivers.* At 30th June, 1946 the Melbourne and Metropolitan Board of Works had 115 miles of main drains under its control—98 miles of underground, 12 miles of constructed open drains, and 5 miles of natural watercourses and unlined open drains. The following table gives details of the financial operations of the Melbourne drainage and river control system for the years 1944-45 and 1945-46. The total capital cost to 30th June, 1945, was £1,784,054 and to 30th June, 1946 £1,837,847.

DRAINAGE AND RIVERS, MELBOURNE : FINANCES.

Year.	Increase in Capital Cost.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest.	Surplus.
	£	£	£	%	£	£
1944-45 ..	47,631	99,808	21,536	21.57	57,549	20,723
1945-46 ..	53,793	102,716	25,374	24.70	58,126	19,216

(ii) *Geelong Waterworks and Sewerage Trust.* (a) *General.* The Geelong Waterworks and Sewerage Trust, constituted in 1908 and reconstituted under the Geelong Waterworks and Sewerage Act in 1910, consists of five commissioners. The amount of loan money which may be raised is limited to £900,000 for water supply undertaking, £760,000 for sewerage undertaking, and £270,000 for sewerage installation to properties under the deferred payment system. The population supplied is estimated by the Trust at 51,500. This and other general information relates to 30th June, 1946.

(b) *Water Supply.* The catchment area is about 16,000 acres. The storage capacity of all reservoirs and service basins is 2,738 million gallons. In addition, the State Rivers and Water Supply Commission has made available a supplementary supply of a minimum quantity of 545 million gallons of water per annum from the Bellarine Peninsula System. There are 320 miles of mains within the water supply area. The total expenditure on

waterworks to 30th June, 1946 was £789,789. Expenditure for 1945-46 comprised £27,404 (£29,217 in 1944-45) on working expenses and £45,042 (£44,355 in 1944-45) on interest, sinking fund and reserves, and the revenue for the year 1945-46 was £57,667 (£66,255 in 1944-45). The sinking fund appropriations at June, 1946 amounted to £100,336. The replacement and contingencies reserve amounted to £121,275. There is a water rate of 1s. in the £1 (with minima of five shillings for unbuilt-on land and one pound for tenements) on the net annual value of ratable properties.

(c) *Sewerage Works.* The sewerage scheme consists of a main outfall sewer to the ocean at Black Rock, about 9 miles from Geelong, and 147 miles of main and reticulation sewers. The sewerage area is 9,571 acres, and the number of buildings within the sewered areas is 12,552, of which 12,532 have been connected. The number of buildings within the drainage area is 12,802. The total expenditure to 30th June, 1946 on sewerage works was £653,921, and on the cost of sewerage installation under deferred payment conditions £257,897 of which £163 is outstanding. The revenue in 1945-46 amounted to £45,193 (£44,788 in 1944-45) and the expenditure comprised £9,427 (£10,511 in 1944-45) on working expenses and £34,871 (£35,013 in 1944-45) on interest, sinking fund and reserves. Sinking fund appropriations at June, 1946 were £91,609. Replacement and contingencies reserve amounted to £90,410. A general rate of 1s. 2d. in the £1 is levied on the net annual value of ratable properties.

(iii) *The Ballarat Water Commission and the Ballarat Sewerage Authority.* (a) *General.* The Ballarat Water Commission was constituted on 1st July, 1880, and the Ballarat Sewerage Authority on 30th November, 1920. The members of the Water Commission constitute the Sewerage Authority. The Commissioners number seven, three (one of whom is chairman) being appointed by the Government, and four being elected by the Council of the City of Ballarat. General information is as at 31st December, 1946.

(b) *Water Supply.* The Water Supply District embraces an area of about 27 square miles, containing a population of about 45,000. The total storage capacity of the six reservoirs is 2,332 million gallons and the catchment area is 17,545 acres.

The capital cost of construction of the waterworks was £767,333 to 31st December, 1946. The liabilities are loans due to the Government, amounting to £270,444 at 31st December, 1946. The revenue for the year 1946 was £42,851 (£47,156 in 1945). Working expenses during 1946 amounted to £23,971 (£17,966 in 1945) and interest and other charges to £22,120 (£24,580 in 1945). A rate is levied of 1s. in the £1 on the net annual value of all ratable properties, with a minimum of 15s. per annum for land on which there is a building or water supply.

(c) *Sewerage.* The scheme as designed provides for a population of 90,000 persons, but at 30th June, 1946 about 39,700 persons were being served. The capital cost of sewerage construction works to 31st December, 1946, was £467,402. The method of sewage disposal is by sedimentation, oxidation and sludge digestion. One hundred and one sewered areas had been declared as at 1st January, 1946, comprising 9,853 tenements, of which 8,913 were connected.

The scheme is financed by debenture-issue loans from various financial institutions. The liabilities on account of loans secured for construction at 31st December, 1946 amounted to £393,035, redemption payments at that date totalling £58,485. An expenditure of £187,122 was incurred for house connexions, the whole of which has been redeemed. Revenue during 1946 (1945 in brackets) amounted to £36,375 (£34,869) and expenditure, including £23,947 (£24,080) on interest and redemption, to £33,858 (£33,264).

A general rate is levied of 1s. 6d. in the £1 of the net annual value of all properties within the drainage area.

(iv) *Sewerage Authorities.* At 30th June, 1946, 40 sewerage authorities had been constituted under the provisions of the Sewerage Districts Acts and the systems were in operation in the following districts:—Ararat, Bairnsdale, Ballarat (*see above*),

Benalla, Bendigo, Castlemaine, Colac, Dandenong, Dimboola, Echuca, Hamilton, Horsham, Kerang, Kyabram, Kyneton, Mildura, Mornington, Morwell, Murtoa, Nhill, Portland, Shepparton, Swan Hill, Wangaratta, Warracknabeal, Warragul and Warramboul. At Beechworth, Euroa, Lorne, Sale, Werribee, Wodonga and Yarram, operations had been suspended and the undertakings at Charlton, Leongatha, Maffra, Maryborough, Traralgon and Yarrawonga had not been brought into operation. After Ballarat (see details above), Bendigo is the largest system, serving approximately 26,175 persons, with 6,565 properties connected to sewers.

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

The waterworks controlled by the State Rivers and Water Supply Commission at 30th June, 1946 included 35 large reservoirs and 225 subsidiary reservoirs and service basins with a total storage capacity of 536,000 million gallons (1,969,970 acre feet). Length of channels was 14,842 miles and of pipe lines 1,112 miles. The quantity of water delivered to water users during 1945-46 was 557,625 acre feet. The table below gives a summary of the Commission's finances for operations in districts under its control for the years 1944-45 and 1945-46:—

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

Year.	Receipts.	Payments.					Total Loan Capital Expenditure to 30th June.
		Operating Expenses.	Interest on Capital Allotted.	Depreciation.	Redemption.	Total.	
	£	£	£	£	£	£	£
1944-45 ..	788,689	895,344	132,496	48,736	3,807	1,080,383	25,782,791
1945-46 ..	773,423	1,110,170	41,864	48,420	1,767	1,202,221	26,417,497

(a) Excludes Waterworks Trusts and Local Governing Bodies.

The financial operations of the State Rivers and Water Supply Commission form part of Consolidated Revenue Fund, but are included in this section for convenience. The major proportion of the interest payable is borne by the State and is additional to that shown above. The net expenditure borne by the State during 1945-46 was £1,511,616.

The Commission administered 80 rural districts during 1945-46 (28 irrigation districts, 34 waterworks districts, 4 flood protection districts and 14 drainage districts), and the reticulated pipe supplies for domestic and industrial purposes in 126 urban districts. In addition, 116 urban districts were administered by waterworks trusts and 16 by local governing bodies. The total loan capital expenditure of these trusts and local government bodies at 30th June, 1946 was £3,995,967, making a grand total of £30,413,464 when added to the figure for works under the control of the Commission. The net loan capital after redemption payments of £1,502,190, was £28,911,274.

3. Queensland.—(i) *The Metropolitan Works Board, Department of Works, Brisbane City Council.* (a) *General.* This organization conducts the water supply and sewerage systems of the City of Greater Brisbane, extending them, in the case of water supply, to the Cities of Ipswich and Redcliffe. Prior to 1928 water and sewerage activities had been controlled by the Metropolitan Water and Sewerage Board, but were then absorbed by the Brisbane City Council.

(b) *Water Supply.* Water storage facilities comprise the following (available capacities are shown in brackets); Somerset Reservoir, 20,000 million gallons (20,000 million gallons); Lake Manchester, 5,806 million gallons (5,725 million gallons); Brisbane River, 543 million gallons (484 million gallons); Pure Water Reservoir, Holt's Hill, 2,500,000 gallons (2,500,000 gallons); Enoggera Reservoir, 1,000 million gallons

(631 million gallons); Gold Creek Reservoir, 407 million gallons (400 million gallons). There are ten service reservoirs with a capacity of approximately 35.1 million gallons. The Somerset reservoir is under the control of the Stanley River Works Board and is a dual purpose project with a designed total holding capacity of 200,000 million gallons, 55,000 million gallons to be for water storage and 145,000 million gallons for flood mitigation. The following table gives a summary of operations for the years 1944-45 and 1945-46 :—

WATER SUPPLY, BRISBANE : SERVICES.

Year.	Length of Trunk and Reticulation Mains.	Number of Services Connected.	Estimated Population Supplied.	Quantity Supplied.	Average Daily Supply.	Average Daily Supply per Head of Estimated Population.	Total Length of Trunk Mains.
	Miles.			Million Gallons.	Million Gallons.	Gallons.	Miles.
1944-45 ..	1,264	82,549	338,451	7,382	20.2	59.8	183
1945-46 ..	1,276	84,851	347,889	7,549	20.7	59.5	183

Water supplied to Ipswich and Redcliffe is not included in the table above. Adding this in, the total quantity supplied during 1944-45 was 8,007 million gallons and during 1945-46, 8,206 million gallons.

(c) *Sewerage.* The following table gives a summary of operations for the years 1944-45 and 1945-46 :—

SEWERAGE WORKS, BRISBANE : SERVICES.

Year.	Premises Connected.	Estimated Population Served.	Total Length of Sewers in operation.	Sewers within Premises.	Main and Reticulation Sewers.
			Miles.	Miles.	Miles.
1944-45 ..	40,830	167,403	1,209	676	533
1945-46 ..	41,381	169,662	1,219	684	536

(d) *Water Supply and Sewerage Works' Finances.* The following table gives particulars regarding finances for the years 1944-45 and 1945-46 :—

WATER SUPPLY AND SEWERAGE WORKS, BRISBANE : FINANCES.

Service and Year.	Capital Cost.	Revenue.	Working Expenses.	Interest, Redemption, etc. Charges.	Total Expenditure.	Surplus or Deficit.
	£	£	£	£	£	£
Water Supply—						
1944-45 ..	6,425,791	763,510	179,980	300,541	543,339	+ 220,171
1945-46 ..	6,637,459	754,521	210,718	301,609	550,605	+ 203,916
Sewerage—						
1944-45 ..	6,472,030	240,559	56,771	336,310	416,129	- 175,570
1945-46 ..	6,540,181	234,731	57,135	335,308	410,801	- 176,070

(ii) *Country Towns.* (a) *Water Supply.* In addition to the city of Brisbane, there were at 30th June, 1945, 85 cities and towns in Queensland provided with water supply systems controlled by municipal and shire councils.

(b) *Sewerage Systems.* At 30th June, 1945, there were ten cities or towns outside the metropolitan area—Bundaberg, Cunnamulla, Goondiwindi, Mackay, Maryborough, Quilpie, Rockhampton, Toowoomba, Townsville and Warwick—with sewerage systems. Sewerage systems were in course of construction in Charleville and Ipswich.

(c) *Finances.* The receipts (other than loan) of water and sewerage undertakings controlled by the cities and towns referred to above (excluding one joint authority classed as semi-governmental) amounted to £491,803 in 1944-45. Expenditure amounted to £486,891, including £185,226 for debt charges. In addition, loan expenditure amounted to £132,493.

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

(ii) *South Australian Waterworks.* (a) *Summary.* The table hereunder gives particulars of the area, capacity, etc. of combined metropolitan and country water works for the years 1944-45 and 1945-46:—

WATERWORKS, SOUTH AUSTRALIA : SERVICES.

Year.	Assessments.(a)		Area Supplied. (a)	Capacity of Reservoirs.	Length of Mains.	Number of Meters.
	Number.	Annual Value.				
		£	Acres.	Million Gallons.	Miles.	
1944-45 ..	193,109	6,980,468	11,873,499	23,904	6,781	105,329
1945-46 ..	196,021	7,035,516	11,901,977	23,910	6,845	103,462

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

(b) *Finances.* Figures for 1944-45 and 1945-46 are shown in the following table.

WATERWORKS, SOUTH AUSTRALIA : FINANCES.

Year.	Capital Cost.	Revenue.	Working Expenses.			Interest and Sinking Fund Charges.	Profit or Loss.
			Adminis- tration.	Main- tenance.	Total.		
	£	£	£	£	£	£	£
1944-45 ..	18,261,861	882,505	69,503	267,536	470,280	701,878	-289,653
1945-46 ..	18,712,037	853,406	81,936	305,434	520,078	685,615	-352,287

(iii) *Adelaide Waterworks.* At 30th June, 1946 the Adelaide waterworks supplied a district of 138,784 acres. The capacity of its reservoirs was 14,449 million gallons.

Particulars of finances for the years 1944-45 and 1945-46 are given below :—

ADELAIDE WATERWORKS : FINANCES.

Year.	Capital Cost.	Revenue.	Working Expenses.			Interest and Sinking Fund Charges.	Profit or Loss.
			Adminis- tration.	Mainten- ance.	Total.		
1944-45 ..	£ 5,092,958	£ 537,017	£ 31,880	£ 92,592	£ 149,292	£ 200,920	+ £ 186,805
1945-46 ..	£ 5,335,798	£ 517,555	£ 38,068	£ 122,512	£ 185,603	£ 196,576	+ £ 135,376

(iv) *Adelaide Metropolitan Sewerage.* Particulars for 1944-45 and 1945-46 are given hereunder :—

ADELAIDE METROPOLITAN SEWERAGE : SUMMARY.

Year.	Length of Sewers.	Number of Con- nections.	Capital Cost of Revenue- Producing Works.	Revenue.	Working Expenses.		Interest and Sinking Fund Charges.	Profit or Loss.
					Adminis- tration, Mainten- ance, etc.	Total.		
	Miles.		£	£	£	£	£	£
1944-45 ..	968	89,672	3,782,183	300,150	103,928	114,445	150,608	+ 35,097
1945-46 ..	985	91,201	3,874,065	300,207	111,381	121,554	148,283	+ 30,370

(v) *Country Water Supply.* Water district systems outside Adelaide at 30th June, 1946 served an area of 11,763,193 acres, and the capacity of the reservoirs was 9,417 million gallons. These figures exclude the Morgan-Whyalla supply system, which obtains its water from the River Murray. The storage tanks of this system had a capacity of 44 million gallons.

The following table gives financial information for 1944-45 and 1945-46 :—

COUNTRY WATERWORKS, SOUTH AUSTRALIA : FINANCES.(a)

Year.	Capital Cost.	Revenue.	Working Expenses.	Interest and Sinking Fund Charges.	Profit or Loss.
	£	£	£	£	£
1944-45 ..	10,654,856	262,917	304,297	421,419	- 462,799
1945-46 ..	10,833,353	247,733	304,848	406,127	- 463,242

(a) Excludes Morgan-Whyalla system.

(vi) *Morgan-Whyalla Water Supply Scheme.* This scheme, which involved the laying of 223 miles of main, was officially opened on 31st March, 1944, the cost to 30th June, 1946, being £2,542,886. Particulars of this scheme, where applicable, are included in the tables of the combined waterworks in section (ii) above. The water is sold by measure; hence particulars of assessments and area supplied do not apply. Revenue for the year 1944-45 was £113,851, working expenses, etc. £47,969, interest and sinking fund charges, £79,540 and net loss £13,658. Corresponding figures for 1945-46 were, respectively, £115,799, £57,307, £82,913 and £24,421.

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

(ii) *Metropolitan Water Supply, Sewerage and Drainage.* (a) *General.* The sources of the metropolitan water supply are the Canning Dam, Churchman Brook, Wongong Brook, Victoria Reservoir, Armadale Pipe Head Dam and Well, and certain bores. The largest water supply project, the Canning Dam, with a capacity of 20,550 million gallons, was completed during 1940.

The sewage treatment works of Perth and suburbs consist of primary sedimentation with separate sludge digestion and discharge of all effluent direct to the ocean. Fremantle treatment works consist of septic tanks with ocean outfall for effluent. At 30th June, 1945, the number of premises connected with sewers was 42,969, and the length of sewers was 527 miles. Corresponding figures for 1946 were, respectively, 43,509 and 529. The estimated population served at 30th June, 1945 was 193,960, and at 30th June, 1946, 208,296.

There are 33 miles of stormwater drains in the metropolitan area.

(b) *Summary.* The following table gives particulars of water supply for 1944-45 and 1945-46:—

METROPOLITAN WATER SUPPLY, WESTERN AUSTRALIA : SERVICES.

Year.	Estimated Population Supplied.	Number of Services.	Annual Consumption of Water.	Average Daily Consumption.		Number of Meters.	Length of Mains.
				Per Head.	Per Service.		
			Million Gallons.	Gallons.	Gallons.		Miles.
1944-45 ..	243,610	66,863	7,662	86.2	314.0	41,632	1,029
1945-46 ..	247,090	68,310	8,041	89.2	322.6	41,923	1,054

(c) *Finances.* The table hereunder gives separate information for the water supply, and sewerage and drainage branches for 1944-45 and 1945-46:—

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

Year.	Water Supply.			Sewerage and Drainage.		
	Capital Cost.	Revenue.	Expenditure.(a)	Capital Cost.	Revenue.	Expenditure.(a)
	£	£	£	£	£	£
1944-45 ..	5,288,815	375,331	330,853	3,848,205	216,128	238,476
1945-46 ..	5,355,908	360,904	343,807	3,885,585	214,605	246,030

(a) Includes interest and sinking fund.

(iii) *Goldfields Water Supply.* The source of supply for the Coolgardie and adjacent goldfields, as well as for the towns and districts on or near the pipeline, is the Mundaring Reservoir, which has a capacity of 4,650 million gallons. This scheme is now linked

by pipeline with the Canning Dam. In 1944-45 the railways consumed 6.8 per cent., the mines 24.8 per cent., and domestic, etc., 68.4 per cent. of the supply. The following table gives details for 1944-45 and 1945-46 :—

GOLDFIELDS WATER SUPPLY, WESTERN AUSTRALIA : SUMMARY.

Year.	Total Consumption.	Number of Services.	Length of Water Mains.	Capital Cost.	Revenue.	Expenditure.(a)
	Million Gallons.		Miles.	£	£	£
1944-45 ..	1,764	14,196	1,745	6,127,843	314,422	392,338
1945-46 ..	1,831	(b) 14,196	1,750	6,178,682	317,913	405,615

(a) Includes interest and sinking fund.

(b) At 30th June, 1945.

(iv) *Water Supply of Other Towns, etc.* (a) *Controlled by Public Works Department.* During 1944-45 water supplied to other towns and districts, excluding minor water supplies, amounted to 442 million gallons, including service to adjacent mines (3,045,500 gallons) and railways (50,934,500 gallons). Estimated population served numbered 31,874.

(b) *Controlled by Government Railways.* Consumption for the year ended 30th June, 1945, was 358 million gallons. In addition, 376 million gallons were obtained from other sources, mainly the Goldfields Water Scheme and the Metropolitan Water Supply. This amount is apportioned between the consumption totals of the two systems as shown above.

(c) *Water Boards not Controlled by Government.* During 1944-45 approximately 442 million gallons of water were supplied to an estimated population of 18,983.

(v) *Agricultural Water Supply.* During the thirty-five years from 1st July, 1910 to 30th June, 1945, 551 tanks were built, 385 wells sunk, and 3,669 bores put down to a total depth of 200,607 feet. Of the bores put down, 555 yielded fresh and 327 stock water.

(vi) *Artesian and Sub-artesian Waters.* Up to 30th June, 1945, the total number of bores put down in search of artesian or sub-artesian water and in which water was struck (exclusive of operations by Defence Services) was 284, ranging in depth from 30 to 4,006 feet. These figures include 52 bores sunk in the metropolitan area.

6. *Tasmania.*—(i) *Waterworks.* At the end of 1945-46 (1944-45 in brackets) there were 36 (36) municipal waterworks in Tasmania. The capacity of the reservoirs was 876 (889) million gallons, the estimated population served was 155,955 (157,143), the number of properties assessed was 49,771 (49,539), and the length of aqueducts, mains and reticulation was 1,030 (1,010) miles. Costs of construction amounted to £1,820,444 (£1,802,220). The largest of these undertakings is Hobart, with a reservoir capacity at the end of 1945-46 of 578,440 gallons, and 150 miles of reticulation and 91 miles of aqueduct and main.

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

§ 5. Harbour Boards and Trusts.

NOTE.—The number and net tonnage of all vessels which entered the major ports in each State during the years 1938-39 and 1942-43 to 1945-46 are shown in Chapter V.—Transport and Communication, § 3. Shipping at Principal Ports. Particulars of oversea and interstate cargo discharged and shipped during 1945-46 are given in § 6 of the same chapter.

1. *New South Wales.*—(i) *Maritime Services Board of New South Wales.* (a) *General.*

The port of Sydney is administered by the Maritime Services Board of New South Wales, a corporate body of five Commissioners, three of whom are full-time members and two, representing shipping and commercial interests, part-time members. The Board was brought into existence on 1st February, 1936 by the Maritime Services Act 1935, in order to co-ordinate the port and navigation services of the State, which had previously been administered by the Sydney Harbour Trust and by the State Department of Navigation.

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

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

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

Excluding ferry wharves and jetties used for private purposes, there are 64,676 feet of wharfage controlled by the Maritime Services Board and 9,928 feet of commercial wharfage privately owned. Ferry berths cover 3,427 feet, and the total for all purposes is 78,031 feet. The principal wharves are leased to shipping companies whose vessels engage regularly in the trade of the port; the remainder are reserved for vessels which visit the port occasionally. There is ample shed accommodation for normal demands and the port is well equipped with railway wharfage for the handling of traffic which is required to pass direct from ship to rail and vice versa. For the wheat export trade, in both bulk and bag, ample wharfage accommodation and handling equipment of the most modern character are available. Special facilities for the storage and handling of other staple products such as wool, etc., are provided on the waterside, and modern plant has been installed for replenishing ships' bunkers with oil or coal. Facilities in all directions can be very considerably extended when required.

The docking facilities comprise five large graving docks, three floating docks and eight patent slips. The Captain Cook Graving Dock, opened in March, 1945, is capable of accommodating the largest vessel afloat.

The following table gives particulars of the finances of the Board for 1944-45 and 1945-46 in respect of the Port of Sydney:—

MARITIME SERVICES BOARD : FINANCES OF THE PORT OF SYDNEY.

Year.	Revenue.			Expenditure.			Surplus.	Total Capital Debt.
	Wharfage and Transhipment Rates.	Tonnage Rates and Berthing Charges.	Total.	Admini- stration and Mainten- ance.	Interest, Sinking Fund, Exchange, etc.	Total.		
1944-45..	843,449	167,025	1,445,975	472,392	558,563	1,030,955	415,020	11,050,206
1945-46..	799,734	170,766	1,420,187	640,703	550,957	1,191,660	228,527	11,048,854

(c) *Port of Newcastle.* Newcastle Harbour is administered by the Maritime Services Board and an advisory committee consisting of five members appointed by the Governor. In regard to volume of shipping entered, Newcastle ranks second in importance in New South Wales and third in Australia. It is primarily a coal-loading port, but its activities cover the shipment of general commodities. The wharfage and other facilities of the port have been further improved and extended to meet the actual and the anticipated growth of trade with the expansion of industry in the district. Facilities are available for the shipment of wool, wheat and frozen meat, and a wharf is available for timber.

Wharfage accommodation amounts to almost 20,000 feet. Depths of water range from 25 to 28 feet (low water ordinary spring tide).

(d) *Port Kembla.* The Navigation and Harbour and Tonnage Rates Acts are administered at Port Kembla by the New South Wales Department of Public Works on behalf of the Maritime Services Board. Port Kembla, which is sharing to an increasing extent in the shipping trade of the State, has an area of approximately 330 acres, with depths ranging from 18 to 50 feet (low water ordinary spring tide) and wharfage accommodation has been provided for large ocean-going vessels. Being adjacent to the southern coalfields and a rapidly developing centre of secondary industries, its trade is growing and a great future for the port is predicted.

(e) *Other Ports.* In addition to the ports of Sydney and Newcastle, the Board controls more than 20 outports along the coastline of 609 miles.

(ii) *Port Charges.* The port charges payable in respect of shipping and ships' cargoes in New South Wales are imposed by the Commonwealth Government in terms of the Lighthouses Act and the Federal Navigation Act, and by the State authorities under the Navigation Act of New South Wales, the Harbour and Tonnage Rates Act, and the Sydney Harbour Trust Act. The gross collections by the State authorities amounted to more than £1,743,000 in each of the years 1944-45 and 1945-46. Commonwealth Government revenue from marine sources for the whole of Australia amounted to £261,068 in 1944-45 and £250,991 in 1945-46.

2. *Victoria.*—(i) *Melbourne Harbour Trust.* (a) *General.* Information regarding the origin and constitution of this Trust, which controls the Port of Melbourne, appears in Official Year Book No. 12, p. 970 *et seq.* At 31st December, 1946, the sheds available for wharfage accommodation had a length of 19,567 feet, covering an area of 1,338,578 square feet. The area of water in the bay and River Yarra under the control of the Trust is approximately 5,321 acres and the total length of wharves, piers and jetties in the port is 61,740 feet, giving an area of over 58 acres of wharfage, of which 52,799 feet is effective berthing space. The depths of water (low water ordinary spring tide) of main channels and at principal wharves are about 30 feet, the maximum being about 36 feet.

(b) *Finances.* The following table shows particulars of the financial operations of the Trust during the years 1945 and 1946 :—

MELBOURNE HARBOUR TRUST : FINANCES.

Year.	Revenue.		Expenditure.				Surplus.	Gross Loan Indebtedness.
	Wharfage and Tonnage Rates.	Total. (a)	Administration and Maintenance.	Interest, Sinking Fund, Exchange, etc.	Depreciation, Renewals and Insurance Account.	Total. (a) (b)		
	£	£	£	£	£	£	£	£
1945 ..	662,990	917,565	358,991	244,905	130,062	885,556	32,009	4,008,151
1946 ..	701,591	961,037	424,601	244,890	129,200	958,009	3,028	3,973,100

(a) Includes statutory payments to Consolidated Revenue and Geelong Harbour Trust : 1945, £151,598; 1946, £159,318.

(b) Excludes capital expenditure : 1945, £184,264; 1946, £403,400.

(ii) *Geelong Harbour Trust.* The Geelong Harbour Trust was constituted in 1905, and reconstituted in 1934 under the provisions of the Melbourne and Geelong Harbour Trusts Act 1934. The Trust is under the control of three Commissioners appointed by the Governor-in-Council. Revenue for the years 1945 and 1946 was £98,625 and £105,637 respectively. Revenue expenditure was £79,184 and £81,273, capital expenditure £13,651 and £27,507, and loans outstanding at the end of each year amounted to £533,193 and £529,087. Depths of water available in Geelong Harbour range from 24 to 29 feet (low water ordinary spring tide).

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

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

(ii) *Brisbane.* Brisbane accommodates comfortably, in its dredged and improved river, the largest vessels in the Australian trade. The main centres for shipping, although further downstream than formerly, because of the increasing size of vessels, are still within easy access of the city. The maximum depths (low water ordinary spring tide) of the shipping channel decrease from 33 feet in the North-West channel to 18 feet in the Bulimba Reach to Victoria Bridge section. Depths at wharves vary between 24 and 30 feet. Adequate dry-docking facilities are available. The finances of Brisbane Harbour for the years 1944-45 and 1945-46 are shown below :—

BRISBANE HARBOUR : FINANCES.

Year.	Revenue.		Expenditure.		Credit Balance.	Loan Indebtedness.
	Harbour Dues.	Total.	Working Expenses.	Total (including Interest and Redemption).		
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1944-45 ..	164	198	97	176	132	1,099
1945-46 ..	146	247(a)	127	206	173	1,086

(a) Includes accumulated hire charges, etc., for dredging work done for the Commonwealth Government.

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

(iii) *Harbour Boards.* Harbour Boards control the ports of Bowen, Bundaberg, Cairns, Gladstone, Mackay, Rockhampton and Townsville. Finances for each port for the year 1946 are shown below, and a summary for the year 1945 as well as for 1946.

HARBOUR BOARDS, QUEENSLAND : FINANCES, 1946.

Harbour Board.	Revenue.		Expenditure (excluding Loan).		Surplus or Deficit.	Loan Indebtedness.
	Wharfage and Harbour Dues.	Total.	Working Expenses.	Total (including Interest and Redemption).		
	£	£	£	£	£	£
Bowen	10,475	12,390	5,654	13,058	-668	268,366
Bundaberg	4,048	5,078	2,649	6,194	-1,116	13,293
Cairns	60,642	83,296	78,593	90,775	-7,479	163,317
Gladstone	8,179	11,269	3,571	18,673	-7,404	91,680
Mackay	66,575	72,176	11,298	52,481	+19,695	376,078
Rockhampton	15,328	33,426	25,224	39,279	-5,853	504,534
Townsville	62,684	107,215	48,959	99,618	+7,597	72,013
Total, 1946	227,931	324,850	175,948	320,078	+4,772	1,489,281
Total, 1945	382,751	474,104	173,203	298,872	+175,232	1,442,740

4. **South Australia.**—*The South Australian Harbours Board.* All South Australian harbours are controlled by the South Australian Harbours Board, which consists of three commissioners, appointed by the Governor for a period of five years and eligible for re-appointment. The Board is responsible to the Minister of Marine for the discharge of its duties and functions, and controls about 60 ports, but at many of them there is little or no shipping movement. The more important are Adelaide, Augusta, Lincoln, Pirie, Wallaroo and Whyalla. Maximum depths of water (low water ordinary spring tide) at the wharves of these ports range from 20 to 24 feet at Pirie to 35 feet at Adelaide (Outer Harbour). The following table shows the finances of the Board for 1944-45 and 1945-46.

SOUTH AUSTRALIAN HARBOURS BOARD : FINANCES.

Year.	Revenue.	Expenditure from Revenue.				Surplus or Deficit.	Capital Expenditure to 30th June.
		Working Expenses.	Interest.	Sinking Fund.	Total.		
	£	£	£	£	£	£	£
1944-45 ..	638,516	268,961	316,862	50,459	636,282	+ 2,234	8,192,447
1945-46 ..	600,658	292,010	301,583	52,696	646,289	- 45,631	8,224,568

5. **Western Australia.**—(i) *Fremantle Harbour Trust.* Fremantle Harbour is controlled by a board of five commissioners appointed by the Governor-in-Council. Maximum depth of water (low water ordinary spring tide) at the entrance to the harbour is 36 feet, and at the wharves 33 feet. The length of wharf berth accommodation is 10,177 feet.

Gross earnings for the year 1944-45 amounted to £780,078, working expenses to £451,149, interest, £142,582, sinking fund, £25,262, replacement fund, £2,000, and payment of surplus cash to Consolidated Revenue, £158,385. Corresponding figures for 1945-46 were: £709,810, £416,041, £141,911, £26,462, £2,000 and £123,837.

(ii) *Bunbury Harbour Board.* The Bunbury Harbour Board consists of five members appointed by the Government. The depth of water at the entrance to and at the wharf is 27 feet (low water ordinary spring tide). Berthage accommodation is 3,700 feet. Gross earnings in 1944-45 were £33,944, working expenses £23,922 and interest £33,768 (1945-46, £24,420, £32,219, £33,779).

(iii) *Other Ports.* Of the remaining eleven ports of Western Australia, Albany, Carnarvon and Geraldton have the largest amount of shipping movement.

6. *Tasmania.* There are seven Marine Boards and two Harbour Trusts in Tasmania. The Marine Boards control the ports of Hobart, Launceston, Circular Head, Burnie and Table Cape, Devonport, Strahan, and King Island (Currie), and the Harbour Trusts those of Smithton and Leven. Aggregate receipts of all these authorities during the year 1944-45 were £201,404 and expenditures, £190,744, including loan charges, £46,125. Corresponding figures for 1945-46 were £214,327, £246,393 and £49,610. The total receipts of the Hobart Marine Board during 1944-45 were £43,182, loan charges £1,074 and total expenditure £45,597. Corresponding figures for 1945-46 were £55,394, £1,110 and £63,172. Launceston Marine Board receipts during 1944-45 amounted to £67,089, loan charges to £11,024 and total expenditure to £69,199. The figures for 1945-46 were, respectively, £60,751, £10,145 and £60,751.

Hobart, Launceston, Burnie and Devonport are the principal ports of Tasmania. In addition to their interstate and intra-state traffic there is also considerable overseas shipping. Depths of water at wharves vary, in general, between 16 and 40 feet (low water ordinary spring tide), but at Hobart the Ocean Pier has a depth of water of from 36 to 60 feet.

§ 6. Fire Brigades.

1. *New South Wales.*—(i) *General.* Under the Fire Brigades Act 1909-44, a Board of Fire Commissioners, consisting of eight members, operates, and 137 fire districts had been constituted at the end of 1946. The cost of maintenance of fire brigades is borne in proportions of quarter, quarter, and half by the Government, the municipalities, and the insurance companies concerned, but the expenditure must be so regulated that the proportion payable by the councils in a fire district shall not, except in special circumstances, exceed the amount obtainable from $\frac{1}{4}$ d. in the £1 rate on the unimproved capital value of ratable land in the fire district.

(ii) *Board of Fire Commissioners of New South Wales.* At 31st December, 1946, the authorized strength of the Fire Brigade throughout the fire districts of New South Wales was 216 officers and 823 permanent, 1,908 volunteer and 1,686 reserve firemen. Corresponding figures for the Sydney Fire District were 160, 772, 268 and 539. The revenue for the year 1946 (figures for the year 1945 in parenthesis) was £707,177 (£594,794), made up as follows:—From the Government, £172,178 (£140,931); municipalities and shires, £172,178 (£140,931); fire insurance companies and firms, £344,356 (£281,862); and from other sources, £18,465 (£31,070). The disbursements for the year were £700,859 (£653,608).

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

(ii) *Metropolitan Fire Brigades Board.* On 30th June, 1946, the Board had under its control 42 stations, 350 permanent staff, 189 special service and clerical, etc. staff, and 147 partially-paid firemen. The total receipts for 1945-46 (1944-45 in parenthesis) were £298,204 (£309,525), comprising contributions £218,982 (£224,964), receipts for services £53,385 (£59,040), and interest and sundries £25,837 (£25,521). The expenditure was £305,081 (£299,096).

(iii) *Country Fire Authority.* This authority, constituted in 1944, is responsible for the prevention and suppression of fires in the "country area of Victoria", which embraces the whole of the State outside the metropolitan fire district, excluding State forests and certain crown lands. The country area has been divided into 24 fire control regions, three of which (Ballarat, Bendigo and Geelong) are wholly urban and the remainder mixed urban and rural. At 30th June, 1946, there were 170 municipal councils and 118 insurance companies included in the operation of the Act, and 185 urban and 776 rural fire brigades.

The receipts for the first complete period of operation of the authority (2nd April, 1945 to 30th June, 1946) amounted to £117,791. Total expenditure other than loan amounted to £103,106.

3. *Queensland.*—(i) *General.* The Acts of 1920–31 made provision for the retention of existing fire districts, and for the constitution of new districts. For each district there must be a Fire Brigades Board consisting of seven members, and the cost of maintenance of each brigade is proportioned as follows:—The Treasury two-sevenths, insurance companies three-sevenths, and local authorities two-sevenths. All volunteer fire brigades in a district must be registered.

(ii) *Fire Brigades Boards.* At 30th June, 1946, there were fire brigades in 44 towns. The total revenue for the year 1945–46 (figures for 1944–45 in parenthesis) was £210,985 (£224,135), received mainly from the following sources: Government £54,119 (£58,964), local authorities £53,560 (£51,647), insurance companies £80,289 (£77,425), and loans (Government and other), £470 (£7,181). The total expenditure for the year was £210,363 (£220,872), the chief items being salaries and wages £145,528 (£150,847), and interest and redemption of loans, £21,915 (£21,804).

4. *South Australia.*—The Fire Brigades Act 1936–44 provides for a board of five members, and the expenses and maintenance of brigades are defrayed in the proportion of two-ninths by the Treasury, five-ninths by insurance companies, and two-ninths by the municipalities concerned. The contribution of the Treasury, however, is limited to £10,000 and if two-ninths of the expenses and maintenance exceeds this amount, five-sevenths of the excess is contributed by the insurance companies and two-sevenths by the municipalities. At the 30th June, 1946 there were altogether 32 fire brigade stations, and the total revenue for the years 1944–45 and 1945–46 was £86,561 and £85,096 respectively.

5. *Western Australia.*—(i) *General.* Under the 1942 Act certain Municipal and Road Board Districts are constituted fire districts under the control of the Western Australian Fire Brigades Board. The income of the Board is derived in the proportion of two-ninths from the Government, two-ninths from Local Government Authorities, and five-ninths from insurance companies.

(ii) *Western Australian Fire Brigades Board.* The whole of the brigades throughout the State are now controlled by the Western Australian Fire Brigades Board, and number 43. The revenue for the year ended 30th September, 1945 was £78,589 and the expenditure £80,173. Corresponding figures for the year ended September, 1946 are: £85,410 and £93,682.

6. *Tasmania.*—(i) *General.* The municipal council of any municipality may, under the Act of 1920, petition the Government to proclaim the municipality or any portion of it to be a fire district, each district to have a Board of five members. The expenses of each Board are borne in equal proportions by contributions from the Treasury, the municipality concerned, and insurance companies insuring property within the district.

(ii) *Hobart Fire Brigade Board.* The revenue of the Board for the year 1945 amounted to £11,412, for the half-year ended 30th June, 1946 to £6,486, and for the year ended 30th June, 1947 to £13,278.