

MUNICIPAL STATISTICS.

Early legislation. Amongst the various enactments which became law for Victoria on its separation from New South Wales, was a provision in the Imperial Act authorizing the Governor to incorporate the inhabitants of every county, to form districts for the purpose of local government, and to establish elective District Councils, with power to frame by-laws for making and maintaining roads, establishing schools, levying local tolls and rates, &c. Many of the provisions of the Act were found to be unworkable and expensive in the details, and the District Councils therefore discontinued their meetings and practical working under the Act. Improved legislation being required, an Act was passed in 1853, establishing a central Road Board for the whole Colony, with an Inspector-General and staff, and also providing for the creation of local Road Districts under the management of Road Boards. This Act made provision chiefly for local government in country districts, and the greater part of it remained in force until 1863, when it was repealed, and replaced by the Roads Districts and Shires Act. In the meanwhile suburban districts and towns were growing up, and in 1859 an Act was passed for the establishment of municipal institutions in Victoria. This Act also continued in force till 1863, when its chief provisions were merged into the Municipal Corporations Act. Further improvements and extensions have been made from time to time in the Acts dealing with local government, and it is now practically universal throughout Victoria, the whole area of the State (except French Island) being divided into urban or rural municipal districts. The former are called cities, towns, and boroughs, and the latter shires.

The laws relating to local government were amended and consolidated by the *Local Government Act* 1903, passed on 24th December, 1903. The councils of municipalities have power to levy rates, which, together with licence-fees, subsidies received from the State, market dues, rents, and sanitary charges, form their chief sources of income. Their principal functions are to make, maintain, and control streets,

roads, bridges, ferries, culverts, sewers, drains, water-courses, and jetties within their respective boundaries; and, under proper by-laws, to control the traffic and regulate the markets, pounds, abattoirs, baths, and places of recreation; also to make arrangements for sewerage, lighting, water supply, and carrying on of noxious trades, and to act as local Boards of Health.

Cities, towns, boroughs, and shires. Any portion of Victoria, not exceeding in area nine square miles, and having no point in such area distant more than six miles from any other point therein, which contains at least 500 inhabitant householders, and rateable property capable of yielding £300 per annum upon a rate of one shilling in the pound, may be constituted a borough. Any borough having during the preceding financial year a revenue of £10,000 may be declared a town; or, having a revenue of £20,000, may be declared a city. Any portion of Victoria containing rateable property capable of yielding £1,500 on a rate of one shilling in the pound may be constituted a shire. There are 61 cities, towns, and boroughs in Victoria, and 147 shires. The Governor in Council may unite any two or more boroughs which form one contiguous area so as to form one borough, notwithstanding that the area would exceed the limits above specified; may unite any number of municipalities, one of which is a shire, which form one contiguous area, so as to form one shire; and may sever any portion of a municipal district and attach it to another, annex an outlying district, subdivide any municipal district into any number of divisions not exceeding eight, alter the boundaries, or abolish the subdivisions.

Townships. On petition by twenty-five ratepayers resident in any portion, not exceeding three square miles in extent, of any shire, and distant more than ten miles from the City of Melbourne, the Governor in Council may proclaim such portion a township.

Municipal councillors. Each municipality existing at the commencement of the original Act, 29th December, 1854—now incorporated in the Act of 1903—is allowed the number of councillors then assigned to it; but in other cases the number must be some multiple of three, not less than six nor more than 24. The number is usually nine. If the district is subdivided, the number of councillors is three for each subdivision. If at any time in any municipality there is no council or there are not enough councillors to form a quorum, a commissioner may be appointed by the Governor in Council to exercise the powers of the council. Male persons liable to be rated in respect of property in the municipal district of the rateable annual value of £20 at least, whether consisting of one or more tenements, are qualified to hold the office of councillor. The election of councillors takes place annually. One-third of the councillors retire each year by rotation, but retiring councillors may be re-elected. The councillors elect their own chairman; who, in the case of cities, towns, and boroughs, is called the mayor; in the case of shires, the president.

Municipal electors. Every person (male or female) 21 years of age or upwards, liable to be rated in respect of property within a municipal district, in respect of which all rates, made before 10th March of the year, have been paid, shall be entitled to be enrolled as a voter. Plurality of votes is allowed upon the following scale:—

IN CITIES, TOWNS, AND BOROUGHES.

Properties rated at an annual value of under £50	..	..	One vote.
" " " " £50 to £100	..	..	Two votes.
" " " " £100 and upwards	..	..	Three votes.

IN SHIRES.

Properties rated at an annual value of under £25	..	..	One vote.
" " " " £25 to £75	..	..	Two votes.
" " " " £75 and upwards	..	..	Three votes

No person may be enrolled in respect of property rated under £5 a year, unless there is a house on the property, and he resides there. The occupier and the owner are not to be both enrolled in respect of the same property, the former having the prior right to enrolment. Corporations liable to be rated may nominate not more than three persons to be enrolled in their stead, and joint occupiers and owners, not exceeding three, are each entitled to be enrolled. If there be more than three, then the three standing first on the last rate valuation or return are so entitled. The *Voting by Post Act* 1900 may be made applicable to the elections for any municipality on the petition of the councillors.

Rateable property. All land situated in a municipal district is rateable property except the following:—Crown lands; land used exclusively for commons, mines, public worship, mechanics' institutes, public libraries, cemeteries, primary free schools, and charitable purposes; land vested in or held by or in trust for any municipality, local governing body, or commissioners under the Water Acts; land vested in fee in the Railways Commissioners, Minister of Public Instruction, Board of Land and Works, Harbor Trust Commissioners, and Melbourne and Metropolitan Board of Works. The expression "land" includes, of course, all buildings and improvements thereon. For the purpose of rating the valuation of property is computed at its net annual value, that is to say, at the rent at which the same might reasonably be expected to let from year to year, free of all usual tenants' rates and taxes, and deducting therefrom the probable annual average cost of insurance and other expenses (if any) necessary to maintain the property in a state to command such rent: provided that no rateable property shall be computed

as of an annual value of less than £5 per centum upon the fair capital value of the fee-simple thereof. In the case of certain Crown lands held for pastoral purposes only, the provision that the annual value must not be less than 5 per cent. on the capital value does not apply, but the occupier is rated on the actual net annual value of the property.

Rates—
general,
separate, &c.

Rates levied in municipal districts are of three kinds, viz.:—General, extra, and separate rates. General rates are levied at least once in each year by the council of every municipality, and shall not exceed in any one year 2s. 6d. in the pound of the net annual value, or be less than 6d. in the pound of such value. Every general rate is made and levied on the occupier of the property rated, or, if there be no occupier, or the occupier be the Crown or a public or local body, then upon the owner of the property. Extra rates may be levied in any one or more subdivisions of a district, on requisition by not less than two-thirds of the councillors for the subdivision, provided that both rates together in any subdivision do not exceed 2s. 6d. in the pound. Extra rates are levied on all properties alike in the subdivision; but, where any works or undertakings are for the special benefit of any particular portion of the municipal district, "a separate rate" may be levied, with the consent of a majority of the occupiers, and of one-third at least of the owners of the properties affected. The rates to be levied may be differential, according to the benefits to be received by different properties, and the amount of the rate must be such as will, in the opinion of the council, suffice to provide for the payment of interest, and periodical repayments of, or sinking fund for, the loan raised on the security of such rate.

Improvement
charge.

Where under any Act a council is empowered to execute any work at the cost of the owners, or to require such owners to do so, a special improvement charge may be made on the properties affected, on the security of which money may be borrowed for the carrying out of such work.

Incorporation
of Melbourne
and Geelong.

Melbourne and Geelong, the latter of which for many years ranked next in importance to the metropolis, having been incorporated under special statutes prior to the establishment of municipal government on a large scale throughout the State, are not subject to the Local Government Acts, except in a few comparatively unimportant particulars. Melbourne was incorporated as a town in 1842, and was ordained a city in 1847. Geelong was incorporated as a town in 1849, and proclaimed a city in 1910.

Municipalities:
1909-10 to
1913-14.

The total number of municipalities throughout the State in which local government was being administered at the end of the year 1913 was 208. Of these, 18 ranked as cities, 7 as towns, 36 as boroughs, and the remainder (147) as shires. The following is a summary of the estimated population, number of ratepayers, estimated number of dwellings (inhabited and

uninhabited), total and annual value of rateable property, and annual revenue of cities, towns, boroughs, and shires in each of the five years ended 1913-14.

MUNICIPALITIES: 1909-10 TO 1913-14.

Year.	Popula- tion.	Number of Rate- payers.	Estimated Number of Dwellings.		Estimated Value of Rateable Property.		Total Revenue.
			In- habited.	Unin- habited.	Total.	Annual.	
Cities, Towns, and Boroughs—							
1909-10	728,500	183,419	155,382	4,096	£ 108,863,963	£ 6,232,091	£ 1,015,028
1910-11	742,070*	187,562	158,611	3,878	114,113,507	6,508,534	1,056,575
1911-12		194,391	154,083*	4,682*	119,400,893	6,804,697	1,149,044
1912-13	777,696	200,272			127,743,501	7,270,972	1,259,569
1913-14	802,479	203,773	173,646	2,895	137,649,219	7,790,654	..
Shires—							
1909-10	563,500	159,410	122,139	2,600	143,142,655	7,332,397	754,586
1910-11	568,494*	163,916	123,729	3,222	150,970,220	7,716,815	761,853
1911-12		168,229	118,552*	6,549*	155,677,624	7,969,963	796,472
1912-13	583,909	173,271			160,128,933	8,152,473	840,080
1913-14	600,431	175,637	152,654	3,748	164,268,467	8,255,505	..
Total—							
1909-10	1,292,000	342,829	277,521	6,696	252,006,618	13,564,488	1,769,614
1910-11	1,310,564*	351,478	282,340	7,100	265,083,727	14,225,349	1,818,428
1911-12		362,620	272,635*	11,231*	275,078,517	14,774,060	1,945,516
1912-13	1,361,605	373,543			287,872,434	15,423,445	2,099,649
1913-14	1,402,940	379,410	326,300	6,643	301,917,686	16,046,159	..

* Census figures.

Increases in
value of
rateable
properties and
municipal
revenue.

It will be observed from the following figures that there has been a very substantial increase in the estimated value of rateable property and in the revenue of municipalities during the period covered by the foregoing table:—

INCREASE IN VALUE OF PROPERTIES AND IN MUNICIPAL REVENUE.

				Increase.		
				1913-14 over 1909-10.		1912-13 over 1909-10.
				Estimated Value of Rateable Property.		Revenue from all sources.
				Total.	Annual.	
Cities, Towns, and Boroughs				£ 28,785,256	£ 1,558,563	£ 244,541
Shires				21,125,812	923,108	85,494
Total Increase				49,911,068	2,481,671	330,035

The number of ratepayers returned for 1913-14 was 379,410, and the total capital value of rateable property £301,917,686, which is equivalent to about 18½ years' purchase on the basis of the annual value of £16,046,159.

Properties
rated in
municipalities.

The properties upon which the municipalities have levied rates during the past five years have steadily increased, as is shown in the following statement:—

NUMBER OF PROPERTIES RATED IN MUNICIPALITIES, 1909-10 TO 1913-14.

Year.	Properties Rated.		
	In Cities, Towns, and Boroughs.	In Shires.	Total.
1909-10	214,620	208,140	422,760
1910-11	219,723	216,571	436,294
1911-12	227,327	222,348	449,675
1912-13	233,939	231,904	465,843
1913-14	240,077	241,923	482,000

Cities, towns,
and boroughs,
1913-14.

The following is a statement of the estimated population, number of ratepayers, total and annual value of rateable property, annual endowment payable by the Government, total revenue, and amount of rate levied in the £1 in each city, town, and borough in Victoria. The information relates to the municipal year, 1913-14, except as regards the item "revenue," which is for 1912-13:—

CITIES, TOWNS, AND BOROUGHS, 1913-14.

CITIES, TOWNS, AND BOROUGH, 1912-13.							
Name.	Estimated Popula- tion.	Number of Rate- payers	Amount of General Rate levied in the £1.	Estimated Value of Rateable Property.		Total Revenue 1912-13.	Annual Endow- ment pay- able by the Govern- ment under Act No. 2475.
				Total.	Annual.		
CITIES.			s. d.	£	£	£	£
Ballarat ..	21,354	5,452	2 3	2,569,350	171,290	33,415	..
Bendigo ..	27,650	6,307	2 0	2,962,876	211,634	37,626	..
Brunswick ..	36,700	8,443	2 4	4,683,760	234,188	32,463	..
Camberwell ..	15,000	4,480	2 0	3,339,700	166,985	21,276	..
Caulfield ..	19,380	7,500	2 1	4,326,560	216,328	28,736	..
Collingwood ..	36,240	7,923	2 0	4,214,350	252,859	30,558	..
Essendon ..	28,200	8,750	2 0	4,313,920	215,696	28,883	..
Fitzroy ..	35,700	7,688	1 8	4,940,790	329,386	32,470	..
Footscray ..	27,290	6,010	2 4	3,775,900	188,795	32,726	..
Geelong ..	15,400	4,614	2 1	2,760,400	138,020	24,727	..
Hawthorn ..	27,720	6,070	2 0	5,374,780	268,739	35,792	..
Malvern ..	20,000	4,900	2 3	5,003,360	250,168	35,865	..
Melbourne ..	106,100	28,452	1 1	41,360,660	2,068,033	423,849	..
Northcote ..	21,170	6,200	2 3	2,760,560	138,028	23,739	..
Prahran ..	47,710	11,836	1 8	6,847,236	570,603	63,713	..
Richmond ..	41,770	9,567	2 0	5,600,304	311,128	38,845	..
South Melbourne ..	48,000	10,425	2 0	8,741,280	437,064	60,031	..
St. Kilda ..	28,810	6,550	2 0	3,914,196	326,183	37,879	..
TOWNS.							
Ballarat East ..	16,039	3,912	2 0	1,256,970	83,798	13,984	..
Brighton ..	14,550	3,166	2 3	3,086,080	154,304	19,087	..
Coburg ..	11,740	5,924	2 3	1,168,980	77,932	17,869	..
Kew ..	12,350	2,997	2 0	1,800,060	120,004	16,779	..
Port Melbourne ..	13,750	2,920	2 3	1,155,000	96,300	12,060	..
Warrnambool ..	7,400	1,545	2 0	1,132,080	56,604	18,327	..
Williamstown ..	17,000	6,000	2 6	1,501,455	100,097	16,287	..

CITIES, TOWNS, AND BOROUGH—continued.

Name.	Estimated Population.	Number of Rate-payers.	Amount of General Rate levied in the £1.	Estimated Value of Rateable Property.		Total Revenue 1912-13.	Annual Endowment payable by the Government under Act No. 2475.
				Total.	Annual.		
BOROUGH.							
Ararat	4,500	1,055	s. d. 2 6	£ 257,400	£ 25,740	£ 8,200	£ 50
Browns and Scarsdale ..	900	235	1 0	33,100	2,882	609	25
Buninyong ..	1,090	354	1 6	114,500	5,725	894	50
Carisbrook ..	898	222	1 0	49,650	4,038	544	50
Castlemaine ..	5,500	1,385	1 9	451,350	36,108	5,896	50
Chewton ..	975	297	1 6	40,072	5,009	747	50
Clunes ..	1,900	563	1 6	66,276	9,468	2,118	75
Creswick ..	2,350	625	1 6	86,320	8,632	2,667	75
Daylesford ..	3,900	845	2 3	280,710	18,714	4,191	50
Dunolly ..	1,250	355	1 6	60,920	6,092	1,234	50
Eaglehawk ..	7,766	2,000	2 0	408,696	34,058	7,839	50
Echuca ..	3,750	1,093	2 0	256,883	24,465	7,462	50
Geelong West ..	8,286	1,894	2 0	767,142	45,126	5,382	50
Hamilton ..	5,000	1,120	2 3	717,420	35,871	7,521	50
Horsham ..	3,500	757	2 6	445,893	26,229	5,903	100
Inglewood ..	1,400	330	1 6	78,840	6,570	2,491	50
Koroit ..	2,308	446	2 0	321,580	16,079	3,199	50
Majorca ..	675	188	1 0	24,880	3,110	407	30
Malmesbury ..	800	232	1 6	40,120	4,012	773	50
Maryborough ..	5,500	1,150	1 6	278,000	27,800	4,763	50
Newtown and Chilwell ..	6,500	1,500	2 0	816,000	40,800	5,107	50
Oakleigh ..	4,100	1,369	2 0	636,500	31,825	3,823	100
Portland ..	2,200	572	2 0	226,275	15,085	4,020	50
Port Fairy ..	2,000	500	2 0	238,820	14,441	4,774	50
Queenscliff ..	2,125	539	2 0	243,880	12,194	2,462	100
Raywood ..	500	141	1 6	44,745	2,983	465	20
Rutherglen ..	1,800	453	1 3	126,930	12,693	1,926	80
Sale ..	3,420	870	1 9	369,200	18,460	8,172	50
Sebastopol ..	2,450	602	1 6	94,800	7,900	1,230	80
Smythesdale ..	430	152	1 0	18,390	1,839	273	20
Stawell ..	4,600	992	2 0	198,400	19,840	4,459	50
St. Arnaud ..	4,035	813	1 6	225,540	22,554	3,302	50
Talbot ..	1,050	329	1 0	49,100	4,910	1,322	50
Tarnagulla ..	900	335	1 0	105,120	5,256	612	50
Wangaratta ..	3,600	899	1 9	587,000	29,350	4,686	50
Wonthaggi ..	3,500	930	2 0	247,560	20,630	3,110	..
Total ..	802,479	203,773	..	137,649,219	7,790,654	1,259,569	1,905

Shires,
1913-14.

The next table gives a list of the shires, and similar particulars to those shown for the cities, towns, and boroughs:—

SHIRES, 1913-14.

Name.	Estimated Population.	Number of Rate-payers.	Amount of General Rate levied in the £1.	Estimated Value of Rateable Property.		Total Revenue 1912-13.	Annual Endowment payable by the Government under Act No. 2475.
				Total.	Annual.		
Alberton ..	5 500	1,409	s. d. 1 3	£ 1 767,620	£ 88,381	£ 9,007	£ 1,500
Alexandra ..	2,550	816	1 3	862,560	43,128	6,342	750
Arapiles ..	2,678	754	1 0	826,000	41,300	2,799	304
Ararat ..	7,600	2,030	1 0	3,238,000	161,900	11,264	1,300
Avoca ..	4,000	1,471	1 3	814,180	40,709	3,995	485
Avon ..	2,900	741	1 0	789,180	39,459	3,971	575
Bacchus Marsh ..	3,000	695	1 6	581,182	41,513	4,203	385
Bairnsdale ..	8,400	1,933	1 0	1,844,480	92,224	9,809	1,440
Ballan ..	4 125	950	1 3	730,400	36,520	3,575	575
Ballarat ..	4,300	924	1 0	1,210,280	60,514	4,848	575
Bannockburn ..	1,900	450	1 6	461,180	23,059	2,119	265
Barrabool ..	2,020	475	1 4	774,180	38,709	3,451	425
Beechworth ..	6,000	1,410	1 3	376,572	31,381	6,516	545
Belfast ..	2,590	690	1 4	1,047,360	52,368	4,723	650

SHIRES—continued.

Name.	Estimated Population.	Number of Rate-payers.	Amount of General Rate levied in the £1.	Estimated Value of Rateable Property.		Total Revenue 1912-13.	Annual Endowment payable by the Government under Act No. 2475.
				Total.	Annual.		
			s. d.	£	£	£	£
Bellarine ..	4,750	1,083	1 3	1,031,380	51,569	4,231	485
Benalla ..	8,100	2,900	1 0	2,426,280	121,314	11,052	1,450
Berwick ..	7,000	2,400	1 6	1,494,500	74,725	8,080	1,000
Bet Bet ..	3,750	867	1 0	508,700	25,435	2,166	375
Birchip ..	2,100	520	1 0	1,045,900	52,295	3,631	400
Borong ..	5,500	1,330	1 0	2,518,800	125,940	9,758	1,080
Braybrook ..	2,770	1,788	1 3	761,500	38,075	3,994	320
Bright ..	5,800	1,315	1 3	622,320	31,116	3,743	750
Broadford ..	2,050	485	1 0	308,600	15,430	1,457	300
Broadmeadows ..	2,157	923	1 3	573,840	28,692	2,685	365
Bulla ..	2,650	470	1 3	551,540	26,577	3,817	350
Buln Buln ..	4,800	1,386	1 3	1,069,380	53,469	6,336	1,250
Bungarce ..	4,400	942	1 9	653,560	32,678	4,262	800
Buninyong ..	5,600	1,730	1 3	1,153,060	57,683	4,996	550
Charlton ..	3,330	825	1 0	1,052,780	52,639	4,510	550
Chiltern ..	2,500	763	1 0	223,830	22,383	1,925	230
Colac ..	14,000	3,075	1 3	5,231,400	261,570	24,511	1,200
Corio ..	3,000	980	1 6	1,025,100	51,255	5,685	700
Cranbourne ..	4,289	1,161	1 6	1,129,520	56,476	5,949	500
Creswick ..	5,000	1,144	1 0	1,116,180	55,809	4,526	775
Dandenong ..	5,750	3,400	1 9	1,336,320	66,816	9,701	525
Deakin ..	3,200	1,120	1 0	1,105,340	55,267	3,260	446
Dimboola ..	6,400	1,290	1 6	1,724,920	86,246	8,071	618
Donald ..	3,250	756	1 6	851,920	42,596	4,303	575
Doncaster ..	1,200	334	1 6	276,380	13,819	1,728	216
Dundas ..	3,550	1,109	1 6	2,030,840	101,542	7,791	1,050
Dunmunkle ..	5,000	1,010	1 0	1,704,400	85,220	6,581	1,200
East Loddon ..	1,700	469	1 3	904,220	45,211	3,788	550
Eltham ..	3,500	1,433	1 6	555,040	27,752	3,575	450
Epping ..	1,315	502	1 3	387,540	19,372	1,777	225
Euroa ..	5,200	1,235	1 6	1,118,380	55,919	5,367	750
Ferntree Gully ..	5,000	1,600	1 9	797,200	39,860	5,472	900
Flinders ..	3,500	2,044	1 3	782,660	39,133	3,877	260
Frankston and Hastings ..	3,200	1,618	1 6	614,380	30,719	4,195	425
Gisborne ..	2,200	705	1 0	400,800	25,050	2,335	340
Glenelg ..	5,950	1,614	1 0	2,421,880	121,093	9,736	1,200
Glenlyon ..	2,500	468	1 3	165,444	16,544	1,950	250
Gordon ..	4,000	865	1 0	1,024,940	51,247	4,896	740
Goulburn ..	2,900	696	1 0	676,000	33,800	3,505	350
Grenville ..	4,750	1,300	1 3	672,660	44,844	4,690	560
Hampden ..	9,800	2,150	1 6	5,477,240	273,862	30,457	750
Healesville ..	1,912	741	2 0	312,720	15,636	3,520	450
Heidelberg ..	10,312	3,700	1 6	1,960,500	98,025	24,147	500
Heytesbury ..	4,620	1,094	1 6	1,671,900	83,595	8,621	1,100
Howqua ..	1,500	331	1 6	81,200	4,060	2,665	200
Huntly ..	3,500	968	1 0	884,740	44,237	3,918	400
Kara Kara ..	4,200	1,387	1 6	1,179,500	58,975	5,833	676
Karkaroc ..	5,500	1,295	1 0	2,318,320	115,916	10,714	950
Keilor ..	1,000	520	1 3	420,400	21,020	1,371	100
Kerang ..	9,000	2,192	1 0	2,988,420	149,421	15,169	1,000
Kilmore ..	2,000	403	1 6	204,750	20,475	2,335	275
Korong ..	6,500	1,350	1 6	1,068,360	53,418	5,672	650
Kowree ..	3,700	1,340	1 0	1,338,656	83,666	5,895	870
Kyneton ..	7,000	1,888	1 0	1,313,780	65,689	9,909	685
Lancefield ..	1,000	343	1 0	260,800	13,040	1,108	151
Lawloit ..	3,300	618	1 3	544,080	36,272	2,797	396
Leigh ..	1,611	613	1 3	1,016,680	50,834	4,609	550
Lexton ..	2,000	653	1 0	780,580	39,029	3,181	400
Lillydale ..	6,400	2,274	1 9	1,160,860	58,043	7,638	800
Lowan ..	3,900	1,302	1 9	820,000	41,000	4,722	600
Maffra ..	4,250	1,086	1 0	1,404,000	70,200	6,244	1,000
Maldon ..	4,500	1,360	1 0	734,560	36,728	3,389	375
Mansfield ..	3,500	984	1 3	1,171,780	58,589	4,818	900
Marong ..	6,676	2,221	1 3	1,747,820	87,391	7,084	900
Melton ..	1,400	336	1 0	431,475	23,765	2,235	236
Meredith ..	1,200	367	1 3	426,360	21,318	2,176	190
Merriang ..	1,050	275	1 6	357,860	17,893	1,205	176
Metcalf ..	2,600	724	1 0	375,345	25,023	2,048	278

SHIRES—continued.

Name.	Estimated Population.	Number of Rate-payers.	Amount of General Rate levied in the £1.	Estimated Value of Rateable Property.		Total Revenue 1912-13.	Annual Endowment payable by the Government under Act No. 2475.
				Total.	Annual		
			s. d.	£	£	£	£
Mildura ..	6,300	1,637	1 9	1,294,160	64,708	8,661	476
Minhamite ..	1,960	596	1 0	1,292,660	64,633	6,144	650
Mirboo ..	1,494	340	1 6	899,020	19,951	3,171	700
Moorabbin ..	14,549	5,900	2 6	2,858,560	142,928	24,934	600
Mornington ..	1,600	485	1 6	353,500	17,675	3,219	230
Mortlake ..	3,163	698	1 3	2,209,900	110,495	8,615	700
Morwell ..	3,465	877	1 3	920,160	46,008	4,927	900
Mount Alexander ..	2,150	540	1 0	124,012	9,921	1,139	126
Mount Franklin ..	2,678	858	1 3	160,110	16,011	1,982	204
Mount Rouse ..	2,450	690	1 0	1,564,480	78,224	6,033	400
Mulgrave ..	2,534	813	2 0	509,980	25,499	3,492	450
Melvior ..	4,148	1,137	1 0	739,380	36,969	2,987	450
Narracan ..	5,570	1,439	1 6	1,232,000	61,600	7,208	1,400
Newham and							
Woodend ..	2,490	535	1 3	328,725	21,915	2,748	300
Newstead ..	2,000	586	1 0	342,720	17,136	1,658	210
North Ovens ..	2,600	800	1 0	670,680	33,534	2,626	296
Numurkah ..	6,800	1,710	1 0	2,446,600	122,330	9,956	1,200
Nunawading ..	8,255	3,053	2 0	1,510,840	75,542	10,222	950
Omeo ..	3,740	1,165	1 6	864,740	43,237	6,264	1,700
Orbost ..	3,900	1,205	1 6	817,400	40,870	5,026	1,100
Oxley ..	4,600	1,072	1 0	1,087,460	54,373	4,260	750
Phillip Island and							
Woolamai ..	3,867	2,301	1 6	1,133,580	56,679	7,138	1,100
Poowong and Jeetho ..	7,400	1,619	1 3	1,843,360	92,168	11,067	2,000
Portland ..	5,300	1,946	1 3	1,726,160	86,308	7,900	1,000
Preston ..	6,300	2,418	2 0	1,016,220	50,811	7,127	650
Pyalong ..	1,100	350	1 0	335,120	16,756	1,164	229
Ripon ..	4,300	1,350	1 3	1,747,120	87,356	7,769	450
Rochester ..	5,172	1,573	1 0	1,225,000	61,280	5,279	500
Rodney ..	6,718	1,581	1 0	2,021,980	101,099	7,228	875
Romsey ..	1,900	490	1 3	479,620	23,981	2,400	274
Rosedale ..	3,750	1,096	1 0	1,440,000	72,000	5,809	1,000
Rutherglen ..	4,800	1,069	1 0	764,900	38,245	3,485	450
Seymour ..	4,000	1,096	1 0	826,280	41,314	4,389	850
Shepparton ..	6,300	1,695	1 0	1,980,040	99,002	11,774	850
South Barwon ..	2,800	1,212	1 9	535,740	26,787	3,459	277
South Gippsland ..	4,125	1,021	1 6	982,100	49,105	5,581	1,050
Springfield ..	700	167	1 4	269,400	13,470	1,224	189
Stawell ..	3,698	1,225	1 3	1,442,680	72,134	6,203	624
Strathfeldsaye ..	3,810	1,089	1 3	420,200	21,010	2,233	278
Swan Hill ..	6,795	2,320	1 0	2,111,940	105,597	10,181	550
Talbot ..	1,100	402	1 0	382,440	19,122	1,043	221
Tambo ..	2,900	1,024	1 6	657,000	32,850	4,064	895
Templestowe ..	1,000	426	1 3	307,380	15,369	1,884	177
Tewong ..	6,420	1,709	1 0	1,906,860	95,343	9,808	1,800
Traralgon ..	3,200	885	1 3	890,000	44,500	6,518	893
Tullaroop ..	3,042	816	1 0	389,850	25,990	2,248	337
Tungamah ..	5,468	1,562	1 0	1,769,000	83,450	6,457	900
Upper Yarra ..	3,580	824	1 6	404,740	20,237	2,916	450
Violet Town ..	3,000	680	1 0	767,500	38,375	2,770	450
Walhalla ..	2,200	541	2 0	64,880	8,110	1,815	570
Walpeup ..	3,095	1,286	1 0	1,276,000	63,800	2,999	..
Wannon ..	2,766	788	1 0	1,968,640	98,432	7,473	862
Waranga ..	5,400	1,780	1 0	1,655,760	82,788	6,510	750
Warragul ..	4,454	1,070	1 6	1,100,340	53,359	7,201	1,800
Warrnambool ..	8,700	1,926	1 0	3,895,420	194,771	13,107	1,380
Werribee ..	3,850	3,930	1 6	1,736,540	86,827	5,336	600
Whittlesea ..	2,220	537	1 3	433,120	21,656	2,423	235
Wimmera ..	4,200	1,035	1 0	1,636,080	81,804	5,761	733
Winchelsea ..	4,200	1,345	1 3	1,449,000	72,450	6,515	850
Wodonga ..	2,050	644	1 0	494,940	24,747	2,466	238
Woorayl ..	4,430	1,211	1 9	1,330,840	66,542	10,011	2,000
Wycheproof ..	4,306	1,111	1 0	1,304,960	65,248	5,261	665
Yackandandah ..	4,534	903	1 0	925,000	46,250	4,530	933
Yarrowonga ..	3,310	800	1 0	754,720	37,736	5,219	570
Yea ..	2,620	730	1 3	932,460	46,623	4,449	800
Total ..	600,431	175,637	..	164,268,467	8,255,505	840,080	96,539

The following is the number of cities, towns, and boroughs, Ratings in municipalities, and the number of shires in which rates were struck in each of the last five years at the amounts set down in the first column:—

RATINGS IN MUNICIPALITIES, 1909-10 TO 1913-14.

Amount levied in the £1.	Number of Cities, Towns, and Boroughs.					Number of Shires.				
	1909-10.	1910-11.	1911-12.	1912-13.	1913-14.	1909-10.	1910-11.	1911-12.	1912-13.	1913-14.
s. d.										
0 9	..	..	..	..	..	1	1	1	..	..
1 0	8	8	7	6	6	80	77	72	68	60
1 1	..	..	..	1	1	..	..	..	..	..
1 2	..	..	..	..	..	..	..	..	..	..
1 3	2	1	2	2	1	33	33	38	38	39
1 4	..	..	..	..	..	2	3	3	2	3
1 6	11	11	13	11	11	20	21	20	26	31
1 7	..	..	..	..	..	1	..	..	..	..
1 8	2	2	2	2	2	..	..	..	..	..
1 9	12	9	8	6	3	3	5	5	7	8
1 10	1	3	2	..	..	..	..	..	..	..
1 11	..	..	..	..	..	1	..	..	..	..
2 0	16	18	15	19	22	4	5	5	5	5
2 1	..	..	1	2	2	..	..	..	..	..
2 2	..	..	..	..	..	..	..	1	..	..
2 3	4	5	8	8	8	..	..	..	..	..
2 4	2	2	1	1	2	..	..	..	..	..
2 6	1	..	2	3	3	1	1	1	1	1
1 0	..	..	..	..	..	..	..	..	..	..
1 5	1	1	..	..	..	..	..	..	..	..
1 8	..	..	..	..	..	..	..	..	..	..
Total ..	60	60	61	61	61	146	146	146	147	147

* These amounts refer to Melbourne City. The rating for the North Melbourne and Flemington and Kensington portions of Hopetoun Ward was different from that for the rest of the city.

These figures give an average rating of 1s. 10d. in the £1 in cities, towns, and boroughs, and of 1s. 3d. in shires. The rating in the urban districts is thus shown to be 7d. in the £1 more than in the rural districts. It will be observed that no municipality during the last five years imposed the minimum rate allowed by law, viz., 6d., but that several reached the maximum of 2s. 6d. in the £1.

The following return shows the proportion of properties at the different rateable values at three dates. It will be seen that there was very little alteration in the eight years intervening between the first and last dates:—

PROPORTION OF PROPERTIES AT DIFFERENT RATEABLE VALUES, 1901-2, 1905-6, AND 1909-10.

Rateable Values.	Number of Properties in every 100 Rated.								
	In Cities, Towns, and Boroughs.			In Shires.			In Victoria.		
	1901-2.	1905-6.	1909-10.	1901-2.	1905-6.	1909-10.	1901-2.	1905-6.	1909-10.
Under £25 ...	72.6	72.9	70.1	63.1	64.6	63.9	67.8	68.8	67.0
£25 to £50 ...	18.3	18.0	20.3	23.4	20.6	18.8	20.9	19.3	19.5
£50 " £75 ...	4.2	4.2	4.9	5.6	6.2	7.3	4.9	5.2	6.1
£75 " £100 ...	1.7	1.8	1.5	3.5	3.5	3.5	2.6	2.6	2.5
£100 " £200 ...	2.0	2.0	2.0	3.1	3.6	4.6	2.5	2.8	3.3
£200 " £300 ...	.6	.5	.5	.6	.7	1.0	.6	.6	.8
£300 " £400 ...	.2	.2	.2	.2	.3	.3	.2	.2	.3
£400 " £500 ...	.1	.1	.1	.1	.1	.2	.1	.1	.1
£500 and upwards	.3	.3	.4	.4	.4	.4	.4	.4	.4

Municipal
revenue and
expenditure.

The ordinary revenue and expenditure for the last three financial years were as follows:—

REVENUE AND EXPENDITURE OF MUNICIPALITIES, 1911 TO 1913.

Sources of Revenue.	1911.	1912.	1913.
Taxation —	£	£	£
Rates	1,046,943	1,103,210	1,199,874
Licences	100,845	102,297	103,528
Dog Fees	19,833	20,438	21,483
Government Endowment and Grants ...	157,141	161,513	160,949
Contributions for Streets, Footpaths, &c. ...	47,342	64,646	59,172
Market and Weighbridge Dues ...	63,071	74,029	71,937
Sanitary Charges	66,389	74,058	80,194
Rents	79,263	81,725	78,016
Other Sources	237,601	263,600	324,496
Total	1,818,428	1,945,516	2,099,649
Heads of Expenditure.			
Salaries, &c.	168,303	176,489	187,180
Sanitary Work, Street Cleansing, &c. ...	178,623	198,006	203,757
Lighting	87,341	84,410	87,395
Contributions to Fire Brigades ...	23,120	25,946	27,101
Public Works—			
Construction	311,065	335,717	339,158
Maintenance	571,254	736,457	753,083
Formation of Private Streets, &c. ...	46,849	66,735	56,600
Redemption of Loans	66,860	61,782	70,506
Interest on Loans	213,752	217,933	224,479
Charities	15,785	18,441	16,429
Other Expenditure	187,514	129,190	126,376
Total	1,870,466	2,051,106	2,092,064

As compared with 1912, the revenue of 1913 increased by £154,133, as follows:—Rates increased by £96,664, sanitary charges by £6,136, dog fees by £1,045, licences by £1,231, and “other sources” by £60,896. The revenue from market and weighbridge dues decreased by £2,092, Government endowment and grants by £564, contributions for streets, footpaths, &c., by £5,474, and rents by £3,709. The expenditure was in excess of the amount for the previous year by £40,958. The following items showed increases:—Salaries, £10,691; sanitary work and street cleaning, £5,751; public works, construction, £3,441; public works, maintenance, £16,626; interest on loans, £6,546; lighting, £2,985; redemption of loans, £8,724; and contributions to Fire Brigades, £1,155. Under the other headings, there were decreases as follows:—Formation of private streets, &c., £10,135; charities, £2,012; and “other expenditure,” £2,814.

Proportion of municipal revenue raised from different sources. Fifty-seven per cent. of municipal revenue in 1913 was derived from rates, 5 per cent. from licences of all kinds, 3 per cent. from market and weighbridge dues, 1 per cent. from dog fees, 8 per cent. from Government endowments and grants, 3 per cent. from contributions for streets, footpaths, &c., 4 per cent from sanitary charges, 4 per cent. from rents, and 15 per cent. from all "other sources."

Salaries. In 1913 the salaries of the municipal officers amounted to £187,180, or 9 per cent. of the entire revenue.

Local charities. A sum of £16,429, or less than 1 per cent. of the revenue, was devoted to the local charities; the greater part of this disbursement was in aid of hospitals, benevolent asylums, and associations, and orphan asylums.

Assets and liabilities of municipalities. The assets of the municipalities are shown under three heads—(1) Municipal Fund, (2) Loan Fund, (3) Property; the liabilities under two heads—(1) Municipal Fund, (2) Loan Fund.

MUNICIPAL ASSETS AND LIABILITIES, 1911 TO 1913.

Assets.	1911.	*1912.	1913.
Municipal Fund—	£	£	£
Uncollected Rates	105,241	111,405	108,686
Other Assets	473,054	522,911	582,451
Loan Funds—			
Sinking Funds—			
Amount at Credit	893,528	896,185	924,952
Arrears Due	1,182	1,759	438
Unexpended Balances	264,048	237,202	167,952
Property—			
Halls, Buildings, Markets, &c. ...	3,246,854	3,365,638	3,534,691
Waterworks	207,365	182,815	184,842
Gasworks	72,274	86,872	96,963
Total Assets	5,263,546	5,404,807	5,600,975

Liabilities.	1911.	1912.	1913.
Municipal Fund—	£	£	£
Due on Current Contracts	100,351	73,768	74,770
Arrears due to Sinking Funds	1,182	1,759	438
Overdue Interest	11,997	15,619	18,005
Bank Overdrafts	165,275	234,154	201,142
Other Liabilities	257,371	288,368	364,287
Loan Funds—			
Loans Outstanding	4,831,984	5,011,950	5,259,138
Due on Loan Contracts	92,363	102,135	128,051
Total Liabilities	5,460,523	5,727,753	6,045,831

Municipal
assets and
liabilities
compared.

The total assets of municipalities in 1913 amounted to £5,600,975, and the total liabilities to £6,045,831. The aggregate of the current liabilities (Municipal Fund), was £658,642, against which there were assets amounting to £691,137. The gross liability on account of loan expenditure for works completed and in progress was £5,387,189, which, after deducting sinking funds and unexpended balances, was reduced to £4,293,847. If credit were taken for the value of municipal properties in markets, halls, buildings, gasworks, waterworks, &c. (£3,816,496), the net burden on account of loan moneys would be £477,351.

Endowment of
municipalities.

Under the *Local Government Act* 1891, £450,000 was provided as an annual endowment for the municipalities. This was the first statutory provision made since 1879, when an endowment of £310,000, authorized under the *Local Government Act* 1874, ceased to be payable. A subsidy, however, in lieu thereof, amounting to £310,000, was voted by Parliament annually, but this vote was gradually increased until £450,000 was reached in 1889-90 and 1890-91. This amount was reduced to £405,000 per annum from 1st January, 1893 : to £310,000 from 1st July, 1893 ; to £100,000 from 1st July, 1894 ; and to £50,000 from 1st July, 1902. Under Act No. 2025 it was increased to £75,000 for the year 1906-7, and from the 1st July, 1907, it was increased under Act No. 2129 to £100,000. Payments were made on the basis of this amount to 30th June, 1914, under the authority of Act No. 2475, assented to on 5th December, 1913. The endowment is payable in equal moieties in March and September of each year, and no city or town is entitled to receive any part of it. The distribution amongst the boroughs and shires is based on the amount of general and extra rates received in the twelve months ended on the last day of September next preceding the financial year 1907-8, according to the following scale :—

To every borough or first-class shire	..	3s. in the £1
„ second-class shire	..	5s. „
„ third-class shire	..	6s. „
„ fourth-class shire	..	8s. „
„ fifth-class shire	..	10s. „
„ sixth-class shire	..	12s. „

RATING ON UNIMPROVED VALUES BY MUNICIPALITIES.

Rating on
unimproved
values.

An Act was passed by the State Parliament on 3rd February, 1914, to provide for the optional rating by municipalities on the basis of the unimproved values of rateable property. This measure does not come into operation until proclaimed by the Governor in Council, which proclamation may be made when the values of land made by assessors in the various parts of the State under the *Land Act* 1910 are available for adoption.

Any municipality may adopt the method of rating set forth in the Act, but two months before doing so must publish in the *Government Gazette* and twice in some newspaper circulating in the district a notice of its intention to take such course. If one-tenth of the ratepayers in writing demand a poll the proposal must be submitted by the council to the ratepayers and it shall not be deemed to be carried unless affirmed by a majority of the valid votes recorded, and unless the number of valid votes recorded forms at least one-third of the number of persons on the roll. Where a council of a municipality has not published a notice that it intends to adopt the Act one-tenth of the ratepayers may demand a poll. If a proposal is adopted or rescinded it cannot be again submitted to the ratepayers for three years. Special properties such as railways, tramways, waterworks, hydraulic works, electric light and power works, gas works, and any undertaking extending continuously beyond the boundaries of any municipal district which is subject to more than one separate valuation, although there is no actual separation of the different parts of the property, are not rateable on unimproved values.

WORKERS' DWELLINGS.

Workers' dwellings.

An Act to enable municipal councils to provide workers' dwellings was passed by the State Parliament in February, 1914.

The houses are to be leased to persons who are not owners of dwelling houses in Victoria or elsewhere and who are not in receipt of incomes of more than £200 a year. Sub-letting by tenants is not permitted. In fixing rents of dwelling houses account is to be taken of interest, depreciation, rates, repairs, and insurance. Before constructing new houses plans showing the classes of houses to be built are to be submitted for the approval of the Governor in Council. The amount that may be borrowed for the purposes of the Act by any one municipality is not to exceed £50,000. Power is given to increase the general rate to recoup advances from the municipal fund, but so far as practicable all advances are to be repaid out of the profits accruing from transactions under the Act. Once in every year a balance-sheet has to be prepared showing receipts and expenditure and assets and liabilities relating to all operations undertaken during the previous year.

COUNTRY ROADS BOARD.

Country Roads Board. With the object of improving the main roads of the State an Act (No. 2415) was passed on 23rd December, 1912,

which empowers the Governor in Council to appoint a board to consist of three members. The chairman is to be paid an annual salary not exceeding £800, and each of the other members a salary not exceeding £600.

Duties. The duties of the board are to ascertain by survey and investigation what roads are main roads; the nature and extent of the resources of Victoria in metals, minerals, and materials.

suitable for the purposes of road-making and maintenance, and the most effective and economical methods of dealing with the same, and of supplying and utilizing the material in any part of Victoria; the most effective methods of road construction and maintenance; what deviations (if any) in existing roads or what new roads should be made so as to facilitate communication and improve the conditions of traffic; and to record, publish, and make available for general information the results of all such surveys and investigations. The duty of furnishing information that may be required is imposed on the municipal authorities.

Finance. The construction of permanent works and the maintenance of main roads are likewise to be carried out by the municipalities to the satisfaction of the board. The total cost of the works, in the first instance, is to be paid by the Treasury, but subsequently half the amount expended on permanent works and maintenance is to be refunded by the municipalities affected.

For the purpose of making permanent works, power is given to the Governor in Council to issue stock or debentures to the amount of £400,000 a year for five years, and the principal and interest are a charge upon the Consolidated Revenue of the State. The money so raised is to be placed to the credit of an account to be called "the Country Roads Board Loan Account," which will be debited with all payments made by the Treasurer towards the cost of permanent works. A sinking fund of 1 per cent. per annum on half the amount borrowed is authorized to be paid out of the Consolidated Revenue until half the amount borrowed is redeemed. An annual payment to the Treasurer of 6 per cent. on the amount due by each municipality in respect of permanent works is provided for, and the cost of maintenance, allocated to each municipality, must be paid before the 1st July in each year. A special rate not to exceed 6d. in the £1 on the net annual value of rateable property to meet the cost of permanent works and maintenance may be levied in any ward or riding of a municipality as the council may direct. In the event of default of payment by a municipality, the board may levy a rate to meet the amount owing. All fees and fines paid under the Motor Car Act, all moneys standing to the credit of the Municipal Fees and Fines Trust Fund, all fees paid on the registration or renewal of the registration of traction engines, and all fees received by the Crown after the 30th June, 1912, under the *Unused Roads and Water Frontages Act* 1903, are to be credited to the Country Roads Board Fund.

Since the appointment of the Board in March, 1913, the members have visited many parts of the State, and have inspected the roads in these localities. Plans have been drawn up for proposed works and tenders accepted. In a good many cases permanent works are in progress, and the Board has a large number of important proposals under consideration.

As soon as practicable after the termination of each year the board must present a report to the Minister setting forth its proceedings, the permanent works constructed, the mileage of the roads maintained, and an account of all moneys received and expended under the provisions of the Act.

The rates of fees on registration or renewal of registration of motor cars, motor cycles, and traction engines have been altered. The owners of motor cycles must pay an annual registration fee of 5s.; of traction engines, £3 3s.; and of motor cars, £1 1s. to £6 6s., according to the horse-power of the vehicles.

The following is a statement of receipts and expenditure during 1912-13 of the fund established under sections 38 and 39 of the Country Roads Act:—

COUNTRY ROADS BOARD FUND: RECEIPTS AND EXPENDITURE, 1912-13.

RECEIPTS.			EXPENDITURE.		
	£	s. d.		£	s. d.
Fees and Fines, Motor Car Act	18,975	0 6	General	1,537	16 5
Fees, Unused Roads and Water Frontages Act	25,084	2 10	Balance	43,765	11 11
Fees, Traction Engines Act	1,244	5 0			
	£45,303	8 4		£45,303	8 4

LICENSING FUND.

The following is a statement of the receipts and expenditure of the Licensing Fund for the year ended 30th June, 1913:—

LICENSING FUND.—RECEIPTS AND EXPENDITURE, 1912-1913.

RECEIPTS.			EXPENDITURE.		
	£	s. d.		£	s. d.
Licences	91,436	4 2	Expenses of Officers carrying out the Licensing Act ...	7,150	8 4
Fees	3,015	19 0	Equivalent to municipalities (see previous table)	78,910	0 0
Fines	2,449	9 0	Transferred to Police Superannuation Fund under section 108 of Act No. 2068	24,089	0 1
Sale of confiscated liquor	2	13 0			
Club certificates and percentage fees ...	1,401	16 3			
Permits	1,970	0 0			
Expenses of holding extended annual sitting of court ...	18	19 6			
Compensation assessments ...	9,854	7 6			
	£110,149	8 5		£110,149	8 5

Licence fees. In addition to the endowment of £100,000 the municipalities received from the Government in 1912-13 a sum of £78,910 out of the Licensing Fund, under Act No. 2068, Section 108, this being the equivalent for (1) fees for licences; (2) fees for the registration of brewers and spirit merchants; and (3) fines, penalties, and forfeitures incurred under *The Licensing Act 1876*. The particulars of this payment are as follows:—

EQUIVALENT FOR LICENCE FEES, ETC., 1912-13.

				£	s.	d.
Paid to Cities	...	...	...	33,739	0	0
„ Towns	...	...	...	5,333	0	0
„ Boroughs	...	...	...	11,338	0	0
„ Shires—						
1st Class	...	...	...	288	0	0
2nd „	...	...	...	12,369	0	0
3rd „	...	...	...	10,753	0	0
4th „	...	...	...	825	0	0
5th „	...	...	...	3,608	0	0
6th „	...	...	...	1,567	0	0
Total	...	...	...	£79,820	0	0
Deduct unpaid accounts of 1912-13	£1,241	0	0			
Add payments on account of 1911-12	331	0	0			
				910	0	0
Amount paid in 1912-13	...			£78,910	0	0

MUNICIPAL LOANS.

In connexion with loans raised by municipalities, Section 375 of the *Local Government Act 1903* provides that when any municipality incurs a loan and the debentures are payable in different years, the Council shall obtain from the Auditor-General a certificate, in writing, that the amounts proposed to be provided in each year will be sufficient to pay all principal moneys and interest as they fall due. The repayments of principal have to be so provided for, that each year of the currency of the loan shall bear its full share towards liquidation.

Councils may borrow for not more than 40 years upon the credit of the municipality for permanent works or undertakings or to liquidate moneys owing on account of any previous loan.

The amount of money borrowed by any municipality is not to exceed ten times the average income of the municipality for the previous three years from general rates not exceeding 1s. 6d. in the £1. But in addition, loans having a currency of not more than 30 years may be raised

upon the security of certain income and not upon the credit of the municipality by the issue of debentures or by mortgage. These loans are not to exceed five times the average amount of such income.

Municipal indebtedness. The total loan indebtedness of the municipalities at the end of their financial year was £5,259,138, due to the Government and the public respectively as follows:—

MUNICIPAL INDEBTEDNESS, 1913.

		Due to the Government.	Due to the Public.
		£	£
Cities, Towns, and Boroughs	...	107,818	4,372,626
Shires	...	68,157	710,537
		175,975	5,083,163
Total	...	5,259,138	

MUNICIPAL LOAN RECEIPTS AND EXPENDITURE, 1913.

	Cities, Towns, and Boroughs.	Shires.	Total.
	£	£	£
Receipts during the year	198,236	78,308	276,544
Balance unexpended from previous year	196,408	40,794	237,202
Expenditure during the year	320,616	86,861	407,477
Balance unexpended at the end of 1913	135,711	32,241	167,952

Municipal loan expenditure 1909 to 1913. The municipal expenditure of loan moneys during the year 1913 amounted to £407,477, of which £320,616 was spent by cities, towns, and boroughs, and £86,861 by shires.

This is considerably in excess of the amount spent in each of the preceding four years.

MUNICIPAL LOAN RECEIPTS AND EXPENDITURE: RETURN FOR FIVE YEARS.

Year.	Receipts.	Expenditure.
	£	£
1909	36,653	153,985
1910	396,335	155,607
1911	101,918	191,538
1912	284,234	311,956
1913	276,544	407,477

Loans raised
by municipi-
cipalities,
1913.

The loan receipts for the year amounted to £276,544, all of which was raised from the public. The following are the particulars :—

LOAN RECEIPTS BY MUNICIPALITIES, 1913.

Loans from the Public—					Amount.
Cities, Towns, and Boroughs—					£
Ballarat	..	..	..	..	25,000
Brunswick	..	..	..	..	20,000
Daylesford	..	..	..	..	1,900
Eaglehawk	..	..	..	..	2,310
Essendon	..	..	..	..	31,000
Geelong	..	..	..	..	23,500
Geelong West	..	..	..	..	15,000
Kew	..	..	..	..	37,000
Newtown and Chilwell	..	..	..	..	3,491
Northcote	..	..	..	..	8,567
Port Fairy	..	..	..	..	1,302
Port Melbourne	..	..	..	..	8,000
Prahran	..	..	..	..	4,874
South Melbourne	..	..	..	..	9,000
St. Kilda	..	..	..	..	4,232
Total					198,236
Shires—					
Beechworth	..	..	..	..	3,000
Benalla	..	..	..	..	3,500
Birchip	..	..	..	..	250
Buninyong	..	..	..	..	1,500
Euroa	..	..	..	..	1,250
Ferntree Gully	..	..	..	..	1,069
Huntly	..	..	..	..	4,723
Keilor	..	..	..	..	4,000
Maffra	..	..	..	..	6,500
Mansfield	..	..	..	..	2,300
Mildura	..	..	..	..	7,000
Moorabbin	..	..	..	..	10,400
McIvor	..	..	..	..	3,000
Nunawading	..	..	..	..	9,689
Preston	..	..	..	..	5,000
Shepparton	..	..	..	..	10,012
Upper Yarra	..	..	..	..	2,110
Walpeup	..	..	..	..	3,000
Total					78,308
Grand Total					276,544

Loan moneys
to the credit
of muni-
cipalities,
1913.

At the end of the year 1912-13 the amount of loan money in hand was £167,952—£135,711 to the credit of cities, towns, and boroughs, and £32,241 to the credit of shires.

The following return shows the municipalities having such credits, and the amounts thereof:—

LOANS UNEXPENDED IN MUNICIPALITIES, 1913.

CITIES, TOWNS, AND BOROUGHS—				SHIRES—			
			£				£
Ararat .. ..	..	..	746	Beechworth .. ..	..	..	403
Ballarat .. ..	..	..	8,426	Buninyong .. ..	..	..	533
Ballarat East ..	..	..	91	Dandenong .. ..	..	..	904
Brunswick .. ..	..	..	6,878	Euroa .. ..	..	..	433
Camberwell .. ..	..	..	8,441	Ferntree Gully ..	..	..	1,205
Castlemaine .. ..	..	..	552	Healesville .. ..	..	..	234
Caulfield .. ..	..	..	6,897	Heidelberg .. ..	..	..	856
Coburg .. ..	..	..	210	Huntly .. ..	..	..	3,075
Collingwood .. ..	..	..	527	Karkaroc .. ..	..	..	978
Eaglehawk .. ..	..	..	1,124	Keilor .. ..	..	..	377
Essendon .. ..	..	..	29,486	Leigh .. ..	..	..	309
Fitzroy .. ..	..	..	876	Lillydale .. ..	..	..	407
Footscray .. ..	..	..	3,265	Maffra .. ..	..	..	4,903
Geelong .. ..	..	..	858	Mansfield .. ..	..	..	939
Geelong West ..	..	..	6,463	Melton .. ..	..	..	209
Hawthorn .. ..	..	..	4,247	Mildura .. ..	..	..	2,222
Inglewood .. ..	..	..	700	Minhamite .. ..	..	..	98
Kew .. ..	..	..	11,067	Mulgrave .. ..	..	..	74
Koroit .. ..	..	..	120	Numurkah .. ..	..	..	1,164
Malvern .. ..	..	..	11,735	Nunawading .. ..	..	..	6,243
Maryborough ..	..	..	365	Phillip Island and Woolamai	..	..	186
Newtown and Chilwell	..	..	1,414	Preston .. ..	..	..	658
Northcote .. ..	..	..	613	Shepparton .. ..	..	..	2,907
Port Fairy .. ..	..	..	311	South Barwon .. ..	..	..	154
Portland .. ..	..	..	3,002	Upper Yarra .. ..	..	..	1,555
Port Melbourne ..	..	..	4,458	Walpeup .. ..	..	..	161
Prahran .. ..	..	..	12,432	Warrnambool .. ..	..	..	1,054
Queenscliff .. ..	..	..	131				
South Melbourne..	..	..	3,188	Total Shires .. ..	..	..	32,241
St. Kilda .. ..	..	..	6,611				
Williamstown ..	..	..	477				
Total Cities, &c. ..	..	..	<u>135,711</u>	Grand Total .. ..	..	..	<u>167,952</u>

RECEIPTS AND EXPENDITURE OF THE CITIES OF MELBOURNE, BALLARAT, AND BENDIGO.

Particulars of the receipts and expenditure for 1913 of the City of Melbourne and of the principal cities in the country—Ballarat and Bendigo—are given in the following statements:—

Of the total revenue of the City of Melbourne in 1913, about 33 per cent. was derived from rates, 32 per cent. from the sale of electric light, 12 per cent. from the rental of city property—chiefly markets, and shops—10 per cent. from market and weighbridge fees, 4 per cent. from licences, and 9 per cent. from other sources. For public works maintenance, such as roads and bridges, markets, abattoirs, &c., about 28 per cent. of the total expenditure was incurred; for interest on loans and expenses, 19 per cent.; for payments to sinking funds and repayment of loans, 6 per cent.; for electric supply—depreciation and renewals fund, &c.—23 per cent.; for lighting, 6 per cent.; for street cleansing, 9 per cent.; for salaries, allowances, and commissions, 5 per cent.; and for miscellaneous expenditure, 4 per cent.

City of
Melbourne
revenue and
expenditure
under various
heads.

CITY OF MELBOURNE : REVENUE AND EXPENDITURE, 1913.

Hheads of Revenue.	Amount.
Rates—	£
General	113,548
Lighting	25,716
Licences—	
Publicans'—Equivalent for—From Licensing Act	12,596
Abattoirs—Slaughtering Dues and Meat Supervision Fees	3,668
Drays, Hackney Carriages, Trams, and Motors	1,611
Other Licences	85
Fees under Dog Act	986
City Baths	4,087
Market and Weighbridge Fees	42,646
Lighting—Sale of Electric Current and Rent of Meters, &c.	137,027
Fines and Costs	1,624
Rents—	
Abattoirs	9,345
Markets and Shops	36,192
Boat Sites and Shops	760
Town Hall Premises and Rooms	3,242

CITY OF MELBOURNE: REVENUE AND EXPENDITURE, 1913—
continued.

Heads of Revenue.						Amount.
						£
Interest on Fixed Deposits, &c.	..	..	..	..	..	8,171
Miscellaneous—						
Desiccators	..	..	..	..	..	6,643
Public Conveniences, Cleansing Streets, &c.	..	..	..	..	..	4,309
Tree Planting	..	..	..	..	..	179
Fees under Building Act	..	..	..	..	..	1,295
Sundries	..	..	..	..	..	10,119
Total	..	..	..	..	..	423,849

Heads of Expenditure.						Amount.
						£
Salaries (including clerical assistance, expenses of audit, collection of statistics, making valuation, and commissions paid in lieu of salaries, &c.)	..	..	..	..	..	20,404
Allowance to Lord Mayor	..	..	..	..	..	1,500
Closet Cleansing and Sanitary Works	..	..	..	..	..	201
Street Cleansing, &c.	..	..	..	..	..	35,534
Lighting—Electric and Gas	..	..	..	..	..	22,735
Fire Brigades Board—Contribution	..	..	..	..	..	6,310
Public Works—Maintenance—						
Roads and Bridges	..	..	..	..	..	63,823
Markets and Weighbridges	..	..	..	..	..	24,143
Public Buildings (including Abattoirs, Baths, &c.)	..	..	..	..	..	20,675
Parks and Planting Trees in Streets	..	..	..	..	..	10,656
Interest on Loan from the Government	..	..	..	..	..	240
„ „ Loans from the Public	..	..	..	..	..	77,915
Repayment of Public Loans	..	..	..	..	..	10,000
„ „ Government Loan	..	..	..	..	..	210
Sinking Funds—Loans from the Public	..	..	..	..	..	13,736
Electric Supply—Depreciation and Renewal Funds, &c.	..	..	..	..	..	96,011
Expenses of paying Interest on Loans	..	..	..	..	..	365
Interest on Bank Overdrafts	..	..	..	..	..	888
Contributions to Charitable Institutions	..	..	..	..	..	1,300
„ „ Infectious Diseases Hospital	..	..	..	..	..	2,289
Law Costs	..	..	..	..	..	434
Printing, Advertising, and Stationery	..	..	..	..	..	1,658
Miscellaneous—						
Rat Destruction	..	..	..	..	..	652
Gas Conferences	..	..	..	..	..	179
Fees—Dog Act	..	..	..	..	..	507
Insurance and Guarantee Premiums	..	..	..	..	..	1,640
Elections	..	..	..	..	..	208
Analyst's Salary	..	..	..	..	..	188
Sundries	..	..	..	..	..	3,877
Total	..	..	..	..	..	418,278

City of
Ballarat
revenue and
expenditure,
1913.

Of the total revenue received by the City of Ballarat in 1913, about 57 per cent. was obtained from rates, 9 per cent. from licences, 14 per cent. from sanitary rates, 9 per cent. from market and weighbridge dues, 4 per cent. from rents, and 7 per cent. from all other receipts. The expenditure was incurred in connexion with the following services:—41 per cent. for public works, 9 per cent. for interest, sinking funds, and repayment of loans, 15 per cent. for sanitary work, 8 per cent. for lighting, 6 per cent. for salaries and allowances, 8 per cent. for street cleaning, &c., and 13 per cent. for all other items.

CITY OF BALLARAT: REVENUE AND EXPENDITURE FOR THE YEAR ENDED 30TH SEPTEMBER, 1913.

Revenue.	Amount. £	Expenditure.	Amount. £
Special Grants—From Government	231	Salaries	1,678
General Rates	19,105	Allowance to Mayor	400
Licences—From Licensing Fund... ..	2,684	Sanitary Expenses	4,744
" Other	171	Street Cleaning, &c.	2,490
Market and Weighbridge Dues	3,039	Lighting	2,575
Contributions for Formation of Private Streets, Roads, Lanes, &c.	82	Fire Brigades Board—Contribution	624
Dog Fees	263	Public Works— { Construction	1,788
Pound Fees	99	Maintenance	11,132
Closet Cleansing and Sanitary Rates and Fees	4,738	Repayments of Loans—	
Rents	1,230	To the Public	608
Interest	140	" Government	395
Botanic Gardens	298	Payment to Sinking Funds—	
Other Sources	1,335	Loans from the Public	255
		Interest—Government Loan	151
		" Loans from the Public	1,465
		" Bank Overdraft	146
		Contributions to Charitable Institutions	399
		Printing, Advertising, and Stationery	440
		Agricultural College	500
		Other Expenditure	2,298
Total	£33,415	Total	£32,088

Revenue and
expenditure
of City of
Bendigo,
1913.

In the City of Bendigo in 1913, the following were the proportions of total revenue obtained under the different headings:—General rates, 50 per cent.; licences, 9 per cent.; sanitary rates and fees, 17 per cent.; market and weighbridge dues, 8 per cent.; rents, 7 per cent.; and other sources, 9 per cent. The proportions of the total expenditure

on various services were:—Public works, construction and maintenance, 42 per cent.; sanitary expenses, 16 per cent.; interest on loans, payments to sinking funds, and repayment of loan, 8 per cent.; salaries and allowances, 6 per cent.; lighting, 8 per cent.; street cleansing, 8 per cent.; and miscellaneous expenditure, 12 per cent.

CITY OF BENDIGO: REVENUE AND EXPENDITURE FOR THE YEAR ENDED 30TH SEPTEMBER, 1913.

Revenue.	Amount. £	Expenditure.	Amount. £
Special Grants—From Government	155	Salaries	2,040
General Rates	18,573	Allowance to Mayor	400
Licences—From Licensing Fund	3,288	Sanitary Expenses	6,454
„ Other	277	Street Cleansing	3,307
Market and Weighbridge Dues	3,075	Lighting	3,244
Dog Fees	254	Fire Brigades Board—Contribution	612
Closet Cleansing and Sanitary Rates and Fees	6,509	Public Works—{ Construction	3,228
Rents	2,564	Maintenance	14,199
Interest	204	Repayment of Public Loan	1,000
Sports Ground	327	Payment to Sinking Funds—Loans from the Public	335
Other Sources	2,400	Interest on Loans from the Public	1,656
		Interest on Bank Overdraft	364
		Contributions to Charitable Institutions	377
		Street Trees	487
		Art Gallery	100
		Printing, Advertising, and Stationery	487
		Other Expenditure	2,787
Total	<u>£37,626</u>	Total	<u>£41,077</u>

MUNICIPAL OFFICERS' FIDELITY GUARANTEE FUND.

An Act was passed in 1907 (No. 2080) incorporating the Municipal Association of Victoria, and authorizing it to institute a "Municipal Officers' Fidelity Guarantee Fund," which, however, could not be established until three-fifths of the municipalities in Victoria had agreed in writing to contribute to the fund. The amount to be contributed by any municipality is not to be less than that payable in 1907 for a like guarantee to any incorporated company or society in Victoria. At any time after the fund

**Municipal
Officers'
Guarantee
Fund.**

has reached £3,500 the rates of contribution may be altered, so that it will be maintained at that sum, and in the event of the amount at credit being at any time insufficient to pay all the liabilities and expenses, every municipality must, *pro ratâ* to its contributions, make up the difference. If the association determines to discontinue business, the funds are to be divided proportionately to the sums contributed by each municipal district during the preceding five years. Payment of contributions is to be made within one month after a written notification has been sent by the secretary. Full and accurate accounts are to be kept of all moneys received and expended, and of the details of the transactions. A balance-sheet, made up to the 30th September of each year, must be prepared, exhibiting a true statement of receipts and expenditure and the balance to the credit of the fund.

More than the required number of municipalities agreed to co-operate, and the fund was inaugurated on 1st January, 1908. Guarantee policies have been applied for and granted to the whole of the municipalities in the State. The premium revenue for the year ending 30th September, 1914, in respect of guarantees amounting to £193,530, is estimated at £1,097. The amount to the credit of the fund on 30th September, 1913 (including amount invested in purchase of debentures and accrued interest, £4,286), was £4,990. The claims paid from the inception of the fund to 30th September, 1913, amounted to £711 17s. 6d.

MELBOURNE HARBOR TRUST.

The Melbourne Harbor Trust is a corporate body, established in 1876 to regulate, manage, and improve the Port of Melbourne and portions of the Yarra and Saltwater Rivers adjacent, for which purpose certain lands and properties are vested in Commissioners. On 31st December, 1912, an Act was passed by the State Parliament which altered the constitution of the Trust. Instead of seventeen Commissioners, of whom six were appointed by the municipalities concerned, three by the owners of ships registered at Melbourne, three by merchants and traders paying wharfage rates, and five by the Governor-in-Council, there are substituted five Commissioners to be appointed by the Governor-in-Council. Other than the chairman, one member is to be an owner of ships registered at some British port and trading at Melbourne, one a person engaged in the business of an exporter by sea of Victorian

Melbourne
Harbor Trust
—receipts and
expenditure.

produce, one an importer by sea of goods into Victoria, and one identified with primary production in Victoria. The chairman's salary is not to exceed £1,500; and the attendance fees of the other Commissioners are fixed at £2 2s. per meeting, not to exceed £250 in any year. The borrowing power of the Trust is increased from £2,000,000 to £3,000,000. The payment to the Consolidated Revenue is not to be greater than £60,000 per annum for five years from 1st January, 1913. The following are particulars of the receipts and expenditure during each of the last five years:—

**MELBOURNE HARBOR TRUST.—RECEIPTS AND
EXPENDITURE: 1909 TO 1913.**

Receipts from—	1909.	1910.	1911.	1912.	1913.
	£	£	£	£	£
Wharfage Rates ..	221,155	273,523	287,711	285,870	275,478
Quayage Rates ..	20,056	23,558	24,905	28,577	36,673
Rents and Licence-fees from Lands and Ferries, &c.	17,434	18,088	19,019	21,722	20,424
Interest ..	90	411	2,039	2,375	665
Miscellaneous ..	3,446	2,633	5,684	7,609	4,418
Less amount paid to Con- solidated Revenue ..	262,181 51,612	318,213 62,604	339,358 65,413	346,153 68,343	337,658 60,960
Total ..	210,569	255,609	273,945	277,810	276,608
Expenditure on—					
Plant ..	11,887	859	21,935	72,078	20,659
Harbor Improvements and Maintenance ..	47,808	48,313	50,009	62,374	75,251
Wharfs, &c.—Construction and Maintenance ..	22,339	34,535	48,749	143,404	205,731
General Management, &c.	15,847	15,334	15,604	19,076	36,098
Interest on Loans and Ex- penses ..	72,517	69,409	69,366	69,158	71,081
Total ..	170,398	168,450	205,663	366,090	408,820

During the 36½ years the Trust has been in existence the net receipts have amounted to £5,935,293, and the expenditure to £7,707,250, or £1,771,957 in excess of the receipts, to meet which loans have been raised amounting to £2,150,000, of which £1,850,000 was outstanding at the end of 1913. Of the expenditure of nearly 7½ millions, £2,300,876 has been incurred in connexion with harbor improvements and maintenance, including dredging, landing, and depositing silt, £1,976,867 in connexion with wharfs and approaches, construction, and maintenance, and £685,830 in connexion with plant.

GEELONG HARBOR TRUST.

Geelong
Harbor Trust
—receipts and
expenditure.

An Act to provide for the construction of works in connexion with the harbor at Geelong was passed on 12th December, 1905. This measure made provision for the constitution of the Geelong Harbor Trust and the appointment of three commissioners, the chairman to receive £400 per annum, and each of the other commissioners £200 per annum. The management of the port and shipping is vested in the commissioners, and one-fifth of the total revenue received by the Trust is paid to the Government. Power is given to the Trust to borrow £400,000 and to issue debentures, which may be made payable in London or Melbourne. The following is a summary of the receipts and expenditure since the constitution of the Trust; the expenditure includes loan moneys, of which £393,600 had been raised to the 31st December, 1913:—

GEELONG HARBOR TRUST: RECEIPTS AND EXPENDITURE.

Heads of Revenue and Expenditure.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
Net Receipts (exclusive of loans).							
	£	£	£	£	£	£	£
Wharfage Rates* ..	6,880	6,255	7,758	7,274	9,289	8,361	9,307
Quayage Rates* ..	2,217	1,927	1,096	2,333	2,897	3,211	2,433
Licence Fees and Other Charges* ..	49	49	106	210	219	219	203
Leasing and Licensing of Lands ..	941	1,199	1,282	1,634	2,188	2,880	2,415
Interest ..	..	1,464	226	1,199	363	535	534
"Sparrovale" Farm ..	147	750	2,708	2,809	3,328	3,695	4,959
Corio Freezing Works ..	..	..	..	2,336	17,392	10,760	5,312
Miscellaneous ..	746	1,722	1,705	2,125	29,429†	23,234†	4,803
Total ..	10,980	13,366	14,881	19,020	65,105	52,895	29,966
Net Expenditure (including Expenditure from Loans.)							
	£	£	£	£	£	£	£
Floating Plant ..	33,679	8,865	6,034	1,697	362	242	1,923
Harbor Improvements ..	2,093	18,011	7,136	1,445	5,442	10,906	11,322
Corio Quay ..	..	..	528	17,087	3,710	3,396	6,180
Electric Power Station, Corio Quay ..	..	..	..	5,090	5,497	6,131	4,381
Corio Freezing Works ..	..	..	..	48,060	25,425	31,753	14,327
"Sparrovale" Farm ..	333	7,604	15,784	6,489	3,625	6,650	6,972
"Rippleside" Workshops—Machinery and Plant ..	1,712	1,492	4,363	5,811	643	349	637
Excavations for Storage of Log Timber ..	..	..	815	4,672	38	..	..
General Management and Maintenance ..	4,474	6,245	7,424	9,474	10,039	12,609	13,257
Land and House Property and Improvements ..	10,566	6,943	3,470	9,405	8,627	12,272	1,480
Interest and Sinking Fund ..	909	4,567	5,000	4,961	12,030	13,346	14,835
Miscellaneous ..	2,797	772	2,876	5,675	18,848	8,742	3,443
Total ..	56,563	54,499	53,430	119,866	94,236	106,396	78,757

NOTE.—The details of revenue and expenditure under separate headings for the year 1913 were not available when this Part was sent to press. The total revenue for 1913 amounted to £37,821, and the total expenditure (including that from loans) to £82,953.

* The figures for these items represent four-fifths of the total revenue, one-fifth being payable to the consolidated revenue of Victoria.

† Including insurance on account of Natal plant £14,856 in 1910 and £15,000 in 1911, and sale of sundry properties £9,000 in 1910.

THE MELBOURNE AND METROPOLITAN BOARD OF WORKS.**Creation and
constitution
of Board.**

The Board was established by Act of Parliament No. 1197, which came into force on 20th December, 1890, and it entered upon its duties on 18th March, 1891.

It consists of 40 members, of whom one is the Chairman, who is elected every four years by the other members, the retiring Chairman being eligible for re-election. The other members must be also members of the respective councils which they represent, and are elected as follows:—Nine by the Melbourne City Council, four by the South Melbourne Council, three by the Prahran Council, two each by the Fitzroy, Richmond, St. Kilda, and Collingwood Councils, and one each by the other fifteen suburban municipal councils returning a representative, viz., Footscray, Hawthorn, Brunswick, Essendon, Malvern, Brighton, Northcote, Port Melbourne, Williamstown, Caulfield, Camberwell, Kew, Coburg, Heidelberg, and Preston.

Thirteen of the members retire annually in the month of February, but are eligible for re-election if they remain members of their respective councils.

**Functions of
the Board.**

The functions of the Board are to control and manage the Metropolitan water supply system, including watersheds, reservoirs, weirs, aqueducts, pipes, &c.; to provide the metropolis with an efficient system of sewerage and drainage; and to prevent the pollution of the River Yarra and other public streams and water-courses within the metropolis.

**Area under
Board's
control, and
population.**

The District over which the Board exercises control consists of thirteen cities, seven towns, two shires, and parts of three other municipalities, or twenty-five municipalities in all, embracing a total area of 109,009 acres, and containing an estimated population (including those supplied with water outside the Board's area), on 31st December, 1913, of 639,700.

**Board's
borrowing
powers and
liability on
loans.**

The Board is authorized to borrow £9,750,000 exclusive of loans amounting to £2,389,934, contracted by the Government and taken over by the Board.

The liability for Government loans on 30th June, 1913, was £1,559,786, and for loans raised by the Board, £9,603,570, portion of which has been applied in repayment of Government loans falling due. The Board was then empowered to borrow £976,648 before reaching the limit of its borrowing powers.

WATER SUPPLY FINANCE.**Water supply
assessments
and rates.**

By Act of Parliament the rate to be paid in respect of any lands and tenements for the supply of water for domestic purposes, otherwise than by measure, is limited to an amount not exceeding 8d. in the £1 on the annual valuation of the lands and tenements served. The water rate levied in the year 1912-13 was 7d. in the £1 on the annual value of property served. Assessments of £17 and under are charged a minimum rate of 10s. per annum. There is a charge of 1s. per 1,000 gallons for water supplied

by meter, with the assessed rate as a minimum. For shipping at Melbourne wharfs the charge is 3s. per 1,000 gallons, and at special berths at Melbourne wharfs, with fixed meters, it is 1s. 6d. per 1,000 gallons.

Water meters. Water meters may be hired from the Board at the following annual rentals, payable quarterly in advance:—
For $\frac{1}{2}$ -in. meter, 5s.; $\frac{3}{4}$ -in., 6s.; 1-in., 8s.; $1\frac{1}{4}$ -in., 10s. 6d.; $1\frac{1}{2}$ -in., 14s.

Garden rate. Areas not exceeding 100 square yards (including paths) are supplied with water without meters on payment of a special rate of 10s. per annum each.

Assessed value of property. The total annual value of property assessed for water supply purposes and liable to water rates was £5,670,801 in 1912-13.

Water rate receipts. In 1912-13 the water rate receipts were as follows:—

		£	s.	d.
Water rate (including arrears)	..	141,903	0	1
Meters	..	127,111	9	6
Special rates	..	4,331	18	0
Total	..	273,346	7	7

Revenue and expenditure of water supply system.

The total revenue amounted to £287,342, as against £277,305 in the previous year. The cost in 1912-13 of maintenance and management was £52,151, and of interest £114,440, the total charges being £166,591, compared with a cost in 1911-12 of £50,879, for maintenance and management, and of £111,933 for interest, or a total charge of £162,812. The net profit in 1912-13 was thus £120,751, being equivalent to 2·7 per cent. of the mean capital cost, as compared with £114,493, or 2·76 per cent. in 1911-12.

Cost of the Melbourne and Metropolitan waterworks system.

The total cost of the water supply system up to 30th June, 1913, was as follows:—

Original water supply works, tank pumping station, &c.	..	£84,885
Yan Yean system	..	631,179
Maroondah system	..	778,584
O'Shanassy system	..	297,136
Service reservoirs	..	204,475
Large mains	..	1,091,355
Reticulation	..	1,376,043
Total	..	£4,463,657

SEWERAGE FINANCE.

In 1891 the annual value of rateable property within the area then to be sewered was £6,866,313, of which about £1,000,000 related to vacant lands. The collapse of the land boom was followed by a heavy shrinkage in the value of rateable property. A recovery in values has since taken place, and the total of the sewerage assessments for 1913-14 is £6,475,074 inclusive of assessments on vacant lands.

By Act of Parliament the Board is empowered to levy a general sewerage rate not exceeding 1s. 2d. in the £1 in sewered areas. The present general sewerage rate is 1s. 1d. in the £1 in the sewered area. The total annual value of property assessed for sewerage purposes and liable to the 1s. 1d. rate was, in 1912-13, £5,129,680.

The receipts from the general sewerage rate in 1912-13 amounted to £278,769.

The sewerage revenue for 1912-13 amounted to £303,376, as against £289,724 in the previous year. The cost in 1912-13 of management, working expenses, repairs, and renewals, was £67,874, and of interest £298,964, the total charges being £366,838, compared with a cost in 1911-12 of £63,760 for management, working expenses, repairs, and renewals, and £289,220 for interest, or a total charge of £352,980.

The deficiency in 1912-13 was £63,462, as against £63,256 for the previous year.

Cost of the
Melbourne and
Metropolitan
sewerage
system.

The cost of sewerage works and house connexions up to 30th June, 1913, was £6,798,856, divided as follows:—

Farm purchase and preparation	£489,740
Outfall sewer and rising mains	423,029
Pumping station buildings and engines	211,355
Main and branch sewers	2,016,271
Street reticulation	1,947,396
Reticulation of rights-of-way	871,008
House connexions branches	336,802
Cost of house connexions chargeable to capital	372,671
Cost of sewerage system	£6,668,272
Householders' debts for house connexions	126,298
River improvements	3,656
Total	£6,798,856

DESCRIPTION OF WATER WORKS.

The metropolis is supplied with water from two independent sources—the one known as the Yan Yean system, fed by the watershed of the Plenty River and Jack's Creek, from the southern slopes of the Great Dividing Range, supplemented by the Wallaby and Silver Creeks, tributaries of the Goulburn, whose waters have been diverted over the range by

The Melbourne
and
Metropolitan
waterworks.

means of weirs, aqueducts, and tunnels; the other known as the Maroondah system, whose watershed is in the Healesville district, and which takes in the water of the Maroondah or Watts River, the Graceburn, Donnelly's and Coranderrk Creeks, and other smaller streams.

The total catchment areas of the Yan Yean and Maroondah systems aggregate 69,000 acres, the whole of which is vested in the Board, and free from settlement or grazing.

The work of taking in the water of the O'Shanassy River, a tributary of the Upper Yarra, in the Warburton district, as a third independent system of supply, is in progress.

YAN YEAN SYSTEM.

Yan Yean system.

The Yan Yean watershed embraces Wallaby and Jack's creeks, 12,000 acres; Upper Plenty and Silver creeks, 12,000 acres; and the catchment areas of Yan Yean Reservoir, 5,000 acres, totalling 29,000 acres. The water is collected into the Toorourrong Reservoir, and taken thence to the Yan Yean Reservoir, where it is stored. The reservoir is an artificial lake situated 22 miles northerly from the city, and 602 feet above sea-level. It is formed by the construction of an earthen bank 49 chains long, 30 feet high, 20 feet wide on top, with a slope next the water of three to one and an outside slope of two to one. The reservoir when full covers an area of 1,360 acres, or $2\frac{1}{4}$ square miles, with a maximum depth of 26 feet, and an average depth of 18 feet. The maximum depth of water in the reservoir in 1913 was 24 ft. 8 $\frac{1}{4}$ in. on the 13th November, and the minimum depth 18 ft. 9 $\frac{1}{2}$ in. on the 24th March. Its total capacity is 6,400,000,000 gallons, of which, 5,400,000,000 gallons are available for consumption. In the year ended 31st December, 1913, the total intake of the Yan Yean Reservoir was 5,895,980,000 gallons, and the total output was 5,611,681,000 gallons, exclusive of loss by evaporation. The mean evaporation from the surface is about 3 feet during the year. The lowest recorded intake was 3,877,833,000 gallons for the twelve months ended 31st December, 1908.

From this reservoir the water is forwarded to Morang Pipe Head Reservoir through an open aqueduct capable of delivering 33,000,000 gallons a day when full, and thence to Preston Reservoir, or to Melbourne direct, by a series of pipes.

There is also a direct main, called the high-level system, from Yan Yean to Surrey Hills Reservoir, for supplying the high levels of the eastern suburbs of Melbourne. It is capable of delivering 9,000,000 gallons a day.

High-level system.

MAROONDAH SYSTEM.

The Maroondah water is taken by means of small weirs from the watershed of 40,000 acres situated above Healesville, and it is thence conveyed to the Preston Service Reservoirs along an aqueduct (about 41 $\frac{1}{2}$ miles of open channels, tunnels, and syphons), which is capable of delivering 28,000,000 gallons daily.

The Yan Yean and Maroondah systems can thus supply a total of 70,000,000 gallons daily by means of the conduits at present available.

O'SHANASSY SYSTEM.

Upper Yarra
and
O'Shanassy
watershed.

This project involves the construction of an open aqueduct, tunnels, syphons and pipe line, of an aggregate length of about 49½ miles to deliver water to the eastern portion of the metropolis by way of Mitcham and Surrey Hills. The watershed of the O'Shanassy River, which comprises 33,000 acres, has been excised from a permanent forest area, and vested by the Governor in Council in The Melbourne and Metropolitan Board of Works. The Board is now acquiring the lands necessary for the construction of the works. Surveys and designs have been prepared. Contracts have been let for nearly the whole of the length of the work, which has been practically completed between Surrey Hills and Warburton, and is in active progress between Warburton and the weir site on the O'Shanassy River—the date of contract for completion of the whole work being November, 1914.

Storage and
service
reservoirs.

There are two storage and thirteen service reservoirs (also four other service reservoirs proposed) as under :—

STORAGE RESERVOIRS.

Description.	Capacity.	Reduced Level at By-wash.
	Gallons.	
Yan Yean	6,400,000,000*	602 feet above L.W.M.
Toorourrong	60,000,000	747 " " "

* Of this quantity 5,400,000,000 gallons are available for consumption.

SERVICE RESERVOIRS.

Description.	Capacity.	Reduced Level at By-wash.
	Gallons.	
Preston No. 1	13,500,000	326·50 feet
" No. 2	24,500,000	326·50 "
" No. 3	26,300,000	326·50 "
Essendon No. 1	1,000,000	209·25 "
" No. 2	4,000,000	209·25 "
Caulfield	10,000,000	166·00 "
Kew	3,600,000	281·50 "
Surrey Hills No. 1	9,000,000	423·50 "
" No. 2	15,000,000	429·50 "
Morang (Pipe Head)	3,000,000	485·00 "
Heidelberg	1,000,000	325·00 "
Notting Hill	10,000,000	332·50 "
Olinda (incomplete)	11,000,000	671·00 "
North Essendon (proposed)	10,000,000	290·00 " (approx.)
Mitcham (proposed provision for three reservoirs of 20 to 25 million gallons each) .. .. .	..	515·00 " "

Aqueducts, &c., mains, and reticulation pipes. The following is the mileage return of aqueducts, &c., mains, and reticulation pipes up to the 30th June, 1913:—

	Miles	Chs.	Miles	Chs.
YAN YEAN SYSTEM—				
Aqueducts, &c., between watersheds and Yan Yeau				
Reservoir	23	42		
Aqueduct—Yan Yeau Reservoir to Morang	6	33½		
Total			29	75½
MAROONDAH SYSTEM—				
Main Maroondah Aqueduct	41	28		
Tributary Aqueducts	6	8		
Scours at Preston Reservoirs	2	52½		
Total			50	8½
O'SHANASSY SYSTEM—				
O'Shanassy Weir to Olinda Pipe Head Reservoir (incomplete)	22	26		
Olinda Pipe Head Reservoir to Surrey Hills Reservoir (36-in. steel main)	14	55		
Scour at Surrey Hills Reservoir	0	49		
Total			*37	50
Grand Total, Aqueducts, &c.			117	53½
Large Mains, 54-in to 12-in. diameter (inclusive)			†220	38½
Reticulation under 12-in. diameter			1,171	19
Grand Total, Aqueducts, Mains, &c., Mains and Reticulation			1,509	31

* Length unfinished, 11 miles 34 chains.

† Exclusive of O'Shanassy Main Pipe line.

Consumption of water in Melbourne and suburbs. The average number of people supplied with water during 1913 was 628,430, and the average daily consumption was 66·27 gallons per head. Some districts are supplied outside the Board's area. The total consumption and average consumption per day are shown hereunder for each month during 1913:—

TOTAL AND DAILY AVERAGE CONSUMPTION OF WATER IN MELBOURNE AND SUBURBS DURING EACH MONTH OF THE YEAR, 1913.

Month.	Total Consumption of Water.	Daily Average Consumption of Water
	Gallons.	Gallons.
January	1,633,394,000	52,690,129
February	1,476,676,000	52,738,429
March	1,224,739,000	39,507,710
April	1,145,271,000	38,175,700
May	1,068,435,000	34,465,645
June	1,022,625,000	34,087,500
July	1,062,756,000	34,282,452
August	1,067,790,000	34,444,839
September	1,116,255,000	37,208,500
October	1,328,780,000	42,863,871
November	1,307,683,000	43,589,433
December	1,745,264,000	56,298,839
Total for the year	15,199,668,000	...
Daily average for the year ... .. .	...	41,642,926

The following table shows for each year since the establishment of the Board in 1891 the daily average consumption of water, and the daily average per head :—

DAILY AVERAGE QUANTITY OF WATER CONSUMED IN MELBOURNE AND SUBURBS, 1891 TO 1913.

Year.	Population supplied with Water to 30th June.	Houses supplied with Water to 30th June.	Tenements Connected with Sewerage System to 30th June.	Daily Average of Annual Consumption of Water to 31st December.	No. of Gallons of Water per Head Daily.
				Gallons.	
1891 ...	482,600	99,364	...	25,747,761	53·35
1892 ...	486,620	106,772	...	23,476,780	48·24
1893 ...	469,390	107,125	...	24,290,041	51·75
1894 ...	449,560	107,764	...	27,071,106	60·22
1895 ...	444,340	107,260	...	26,689,683	60·07
1896 ...	452,210	106,486	...	23,837,695	52·71
1897 ...	458,300	105,710	...	24,665,607	53·82
1898 ...	466,895	104,861	3,899	28,253,294	60·51
1899 ...	480,390	103,981	13,593	27,068,465	56·37
1900 ...	489,600	104,050	28,300	28,230,690	57·66
1901 ...	494,905	104,548	38,696	29,427,589	59·46
1902 ...	501,580	105,051	47,172	29,080,027	57·98
1903 ...	502,840	106,176	55,929	28,858,633	57·39
1904 ...	505,760	107,701	64,487	29,523,153	58·37
1905 ...	511,520	109,393	71,689	32,400,286	63·34
1906 ...	519,925	111,494	79,597	33,479,900	64·39
1907 ...	530,655	114,049	87,853	35,212,222	66·36
1908 ...	543,115	116,781	94,067	31,559,830	58·11
1909 ...	557,350	119,650	99,955	33,047,340	59·29
1910 ...	573,255	123,227	105,993	33,272,490	58·04
1911 ...	588,000	128,036	112,293	36,110,115	61·41
1912 ...	604,275	133,122	118,350	38,569,566	63·83
1913 ...	628,430	140,351	125,103	41,642,926	66·27

DESCRIPTION OF SEWERAGE SYSTEM.

Sewerage system.

While the Board took over from the State Government the branch which had the management of the Melbourne

Water Supply, still the chief object of its creation was to carry out the long-called-for and pressing want of an efficient system of sewerage in the Metropolitan area. The plans and estimates of the cost of the Metropolitan sewerage scheme were originally prepared by the late Mr. James Mansergh, an expert civil engineer from England, and were furnished to the Board on its creation. The scheme recommended by the designer and selected by the Board's Engineer-in-Chief (the late Mr. William Thwaites) was estimated to cost £5,030,000, but was modified by Mr. Thwaites, with the concurrence of the Board, so as to reduce the estimated cost to £3,451,000.

The original Act of Parliament contemplated only the construction of sewers in the streets, but this was altered by an Act passed in 1897, which added the duty of constructing sewers in rights-of-way and the branches from the sewers to the building line of each property, and in consequence has added considerably to the original estimate of cost.

Tenements
connected
with the
sewerage
system.

The first tenement was connected in Port Melbourne in August, 1897. On 31st December, 1913, 132,916 tenements had been gazetted as within sewerage areas; and applications received *re* 403 outside gazetted areas; and out of this number 132,861 were provided with sanitary fittings which required to be connected with the sewerage system; 128,318 had been connected, including 403 outside gazetted areas; and 2,067 were in progress of connexion, leaving 4,543 tenements which had not been completely connected, of which 2,476 had not been started.

The following statement shows the progress of house connexions to the 31st December, 1913 :—

PROGRESS OF HOUSE CONNEXIONS WITH THE SEWERAGE SYSTEM IN MELBOURNE AND SUBURBS.

Municipality.				No. of Tenements connected on 31st December, 1913.
Melbourne City ...	...	...	...	25,864
South Melbourne City ...	...	...	...	10,593
Prahran City ...	...	...	...	11,175
Fitzroy City ...	...	...	...	7,665
Richmond City ...	...	...	...	9,871
St. Kilda City ...	...	...	...	5,941
Collingwood City ...	...	...	...	8,071
Footscray City ...	...	...	...	5,319
Hawthorn City ...	...	...	...	5,723
Brunswick City ...	...	...	...	6,809
Essendon City ...	...	...	...	5,765
Malvern City ...	...	...	...	3,832
Caulfield City ...	...	...	...	2,841
Brighton Town ...	...	...	...	2,850
Northcote Town*	...	...	...	3,560
Port Melbourne Town ...	...	...	...	2,939
Williamstown Town ...	...	...	...	2,562
Camberwell Town†	...	...	...	2,415
Kew Town ...	...	...	...	2,069
Coburg Town ...	...	...	...	534
Heidelberg Shire ...	...	...	...	25
Preston Shire ...	...	...	...	593
Moorabbin Shire ...	...	...	...	889
Nunawading Shire ...	...	...	...	10
Total in Gazetted Areas ...				127,915
,, outside Gazetted Areas ...				403
Grand Total ...				128,318

* Declared a city 30th March, 1914.

† Declared a city 20th April, 1914.

PROGRESS REPORT OF SEWERAGE WORK.

On the 31st December, 1913, the sewerage system was practically completed in the following districts, viz.:—Port Melbourne, South Melbourne, Melbourne (except very small portions in Flemington and

Kensington), Richmond, Prahran, Collingwood, Fitzroy, St. Kilda, and Essendon. Nearly the whole of Brighton, Malvern, Williamstown, Brunswick, and Footscray; and the greater portions of Caulfield, Kew, and Hawthorn were dealt with, together with the more thickly populated portions of Coburg, Northcote, Preston, and Moorabbin; besides portions of Heidelberg, and Nunawading.

During the past twelve months considerable progress has been made in the work in Brunswick, Coburg, Malvern, St. Kilda, Nunawading, and a small portion of Heidelberg. Branch sewers have been extended to meet the requirements of new reticulation areas and also the Flemington Race-course.

Reticulation extensions to provide for new buildings or fresh subdivisions have been carried out in various portions of the Metropolitan area, and reticulation contracts and day labour extensions are now being carried out in Coburg, Heidelberg, Moorabbin, Northcote, Malvern, Preston, Brighton, Collingwood, Richmond, and Kew.

The whole system was so far advanced that on the date mentioned the sewage from 133,319 tenements could be collected, including those inside and outside gazetted areas, and 132,861 tenements could be connected. Of these, 128,318 tenements were connected, and work was in progress on 2,067 other premises. The total number of fittings connected with the system was as follows:—52 public conveniences and 76 public urinals, 147,233 water closets, 107,931 baths, 82,848 sinks, 78,915 sets of wash troughs, 37,623 lavatories, 14,521 stables, 8,540 urinals, 6,808 polluted areas and paved yards, 1,874 cellars, 990 slop hoppers, 295 latrines, and 295 dairies, there being also 458 tenements with no fittings to connect. The house connexions pipes join the 9-inch reticulation pipes, which are gradually collected into 12-inch, 15-inch, and 18-inch pipes, and then again into brick and concrete branch sewers, which join the sub-mains and mains. In all $1,255\frac{1}{8}$ miles of reticulation and $141\frac{5}{8}$ miles of mains and branch sewers have been completed, making a total length of 1,397 miles.

Particulars of the system are as follows:—

The sewage of the metropolis is delivered into two main sewers and a subsidiary main leading to the pumping station at Spotswood.

The two main sewers are—

1. The North Yarra main sewer (North Yarra system), which commences with Heidelberg, and thence takes up East Kew, Preston, Coburg, Northcote, Brunswick, the Clifton Hill part of Collingwood, also Fitzroy, and the North Carlton, North Melbourne, and Flemington and Kensington parts of Melbourne, together with Essendon and Footscray.

2. The Hobson's Bay main sewer (South Yarra system), which starts at Sandringham, picking up Brighton, Caulfield, Malvern, St. Kilda, Camberwell, and a small part of Nunawading, besides the

remaining part of Kew, also Hawthorn, Prahran, South Melbourne, Port Melbourne, Richmond, and the remaining part of Collingwood, with East Melbourne, and other remaining parts of Melbourne.

The subsidiary main, which takes in Williamstown, joins the Hobson's Bay main before it enters the pumping station.

PUMPING STATION, RISING MAINS, AND OUTFALL SEWER.

Pumping station. When collected at Spotswood the two systems are dealt with in separate buildings, and are arranged to be worked either separately or unitedly. The sewage enters the pumping station at a level of 50 feet below low-water mark through straining wells, one of which is established on each system. The wells are 22 feet internal diameter, and each contains two straining cages, one of which is always in position. The solid matter caught in them is transferred to a drier in the building over the wells, where it is subject to steam pressure and consequently to a high temperature, which renders the material innocuous. The material from the drier is of no manurial value and is destroyed in a furnace. The sewage is raised by the pumps 125 feet through two 6-feet and one 4-feet wrought-iron rising mains—the three lengths running side by side, each 2·792 miles long (an aggregate length of $8\frac{3}{4}$ miles)—to the head of the outfall sewer, 75 feet above low-water mark, whence it gravitates to the Metropolitan Sewage Farm at Werribee in a partly-open and partly-closed channel 16 miles long, of 11 feet diameter, and having a grade of 2 feet to the mile. The full capacity of the outfall sewer is 18,000 cubic feet a minute.

METROPOLITAN SEWAGE FARM.

Sewage farm. The purification of the sewage of Melbourne and Suburbs is effected by filtration and aeration through the natural soil of the Sewage Farm, containing 10,217 acres 0 roods $39\frac{1}{2}$ perches of land situated about 24 miles south-west of Melbourne and 4 miles south-west of the township of Werribee in open plain country, enjoying an average annual rainfall of 18·43 inches, and having for its eastern boundary the Werribee River, with a long frontage to Port Phillip Bay on the south, to which the land gradually slopes from the north, the highest point being 44 feet above low-water mark. The sewage is delivered on to the farm 37·25 feet above low-water mark, and to irrigate the area above that level necessitates pumping.

The farm originally comprised 8,847 acres 0 roods $5\frac{1}{2}$ perches of virgin unimproved land, which (together with a strip $11\frac{1}{2}$ miles long, containing 168½ acres, on which the greater portion of the main outfall sewer from the pumping station to the farm is constructed) cost the Board £159,873 in 1892. In 1911 a further area of 305 acres 3 roods 11 perches of low-lying Crown land along the foreshore of the bay adjoining the sewage farm was acquired from the Government at £2 per acre. An area of 252 acres 3 roods 7 perches of irrigable land

adjoining the sewage farm on the south-west has been acquired by private treaty at £15 per acre, and arrangements have also been made with the Government for the purchase by the Board from the Lands Purchase and Management Board of portion of the Werribee Closer Settlement Estate on the west side of the Werribee River, adjoining the sewage farm on the north-east, containing 811 acres 2 roods 16 perches of good agricultural land, for £25 per acre ; making the total area of the farm at 30th June, 1913, 10,217 acres 0 roods 39½ perches.

An Act of Parliament has been passed authorizing the Crown to sell to the Board at £2 per acre a further area of 815 acres 1 rood 8 perches of foreshore land extending westerly to the mouth of the Little River, giving the Board a frontage to the bay extending from that river to the Werribee River. Negotiations are also in progress for the purchase of a further area of 120 acres 2 roods 23 perches of private land adjoining the farm at the south-west. The acquirement of these areas will increase the size of the Sewage Farm to 11,153 acres 0 roods 30½ perches.

Before being required for sewage disposal the greater portion of the farm was leased by the Board to hay and grain growers, and proved highly productive under wheat, oats, and barley. The rents ranged up to about 30s. per acre, and for a number of years averaged over £1 per acre over the whole area let.

The method followed by the Board was to gradually resume the land from the tenants as it was required for sewage filtration purposes in order to keep pace with the progress of the sewerage house connexion work in the Metropolis. It has now all been resumed, but there is a considerable area yet to be brought under irrigation, preparation for which is carried on continuously.

The process of preparation generally followed is as follows :—After being divided by roads into rectangular blocks of 80 acres the blocks are again subdivided into paddocks of 20 acres (20 chains by 10 chains). The soil is broken up by steam ploughs, the bottom being subsoiled to a depth of about 2 ft. 6 in., and, where necessary, underdrained with agricultural pipes. The blocks are then graded into bays of about half an acre each, and commanded by distributing drains to facilitate rapid flooding—where the natural contour of the country is uneven it is found necessary to grade the blocks in small terraces ; deep drainage channels are cut, the earth from same being thrown up to form embankments to carry the main supply carriers along the boundaries of these 20-acre blocks, which are at the same time securely fenced, and planted with trees for shelter and breakwinds. The main carriers and drains run parallel north to south through the farm each being half a mile apart ; the sub-carriers and drains branching east and west every 10 chains. The available area of the 20-acre block is reduced to about 18 acres by the space occupied by the carriers, drains, roads, and plantations. The prepared blocks are generally sown with lucerne or perennial

grasses (chiefly prairie or rye) or a mixture of lucerne and prairie grass, and in a few months are ready to be flooded with sewage. The resultant growth is very rapid, and (with the exception of a few hundred acres of lucerne reserved for hay) the irrigated lucerne and grasses are pastured with sheep, cattle, and horses; the practice being to keep the stock shifting from block to block (in flocks of about 500 sheep or equivalent number of horses or cattle to each 18 acres) to eat the feed down in front of the sewage water. The filtered sewage is discharged into the bay by a series of main effluent channels running parallel north and south through the farm.

A large proportion of the farm lands will necessarily never be available for irrigation purposes. One hundred and twenty-nine acres have been devoted to sites for townships and manager's and workmen's cottages, of which last there are 55 on the farm. There are at present 419 acres of plantations and reserves, and the private roads and channels account for a further 432 acres; and the area so utilized must of course increase as additional sections of the farm are brought under irrigation. These three items—cottage and township sites (139 acres), plantations and reserves (419 acres), and private roads and channels (432 acres) at present account for 980 acres.

As each acre of properly prepared land under irrigation suffices to deal with the sewage of only 100 persons, and as there are upwards of 6,000 additional tenements connected with the sewerage system each year (in 1912-13 there were 6,753 additional tenements connected), it will be seen that it is only a matter of a few years before all the available land of the original purchase will be under intense irrigation; hence the necessity for the acquirement of the additional areas previously referred to.

The total area available for sewage disposal at 30th June, 1913, was 6,547 acres, and the average quantity of sewage delivered daily on to this area during the year 1912-13 was 31,770,274 gallons = 117 acre-feet per day = 6.53 feet per annum over the whole of the prepared part of the farm.

Of the area under irrigation, 243 acres were sown with maize for grain, and 363 acres of lucerne were cut for hay, leaving 4,979 acres of lucerne and grasses, and small areas of maize, rape, and other fodders (totalling 223 acres) to be depastured with stock.

Notwithstanding the large quantity of sewage water required to be put on the pastures summer and winter alike, the effective filtration of which must be the Board's first consideration, a considerable profit is derived from the farming and grazing operations. The principal sources of revenue are from the fattening of store sheep and cattle and the grazing of horses on agistment. The stock carried in the spring of 1912 was 35,000 sheep, 500 horses, and 1,500 cattle; and in June, 1913, no sheep, 300 horses, and 2,500 cattle, the general practice being to gradually reduce the stock from the spring maximum to the minimum

in winter. The profits from transactions in sheep and cattle for the year 1912-13 were—from sheep (including sales of wool), £10,893; from cattle, £4,539. The receipts from agistment (principally horses) amounted to £2,215. The fat stock from the farm always excite keen competition from butchers and freezers, and command high prices.

In the year ended 30th June, 1913, 220 tons of lucerne hay and chaff were sold for a gross return of £1,063; while from 223 acres of maize an average yield of $37\frac{1}{2}$ bushels of grain per acre was harvested, which brought an average price of 4s. $1\frac{1}{2}$ d. per bushel. Twenty acres of maize were fed off.

Experiments are being carried on to ascertain the varieties of lucerne and maize best suited for growing on the sewage farm, and the varieties of grasses likely to flourish under the largest amount of winter irrigation.

The total capital cost of the farm for purchase and preparation was at 30th June, 1913, £489,740, and after paying interest on this sum and all charges in connexion with the disposal of the sewage the profits resulting from the various farming operations and the receipts from rents of cottages, &c., reduced the net cost of sewage purification for the year 1912-13 to £13,301 for an estimated population served by the sewerage system of 560,148 persons, or 5·70d. per head. The profitableness of the farming and grazing operations is largely influenced by the climatic conditions of the State generally, and the net cost of sewage purification varies accordingly from year to year. The average for the five years 1908-9 to 1912-13 was 6·09d. per head per annum.

The sewage farm is supplied with water for stock and domestic purposes from the metropolitan water supply system.

Statistical details relating to the farm for the year 1912-13 or as at 30th June, 1913, follow:—

	Acres.
Total area of farm	10,217
Area of irrigated pasture available for grazing ..	4,979
„ under lucerne for hay	363
„ „ maize for grain	243
Total area under irrigation	5,585
Area prepared for settling pits	962
Total area available for sewage disposal ..	6,547
Area prepared for irrigation but not sown ..	84
„ under preparation for irrigation	170
„ „ cereal crops	1,144
„ „ fodder crops (other than lucerne or grasses)	223

	Acres.
Area under bare fallow	879
„ of swampy ground reserved for pits	190
Areas reserved for cottage sites (102 acres) and town- ship sites (27 acres)	129
„ „ plantations and reserves	419
„ „ private roads and channels	432
Total area of farm	10,217
Lucerne hay—area cut, acres	363
Total yield of lucerne hay for season, tons ..	1,350
Maize for grain—area harvested, acres	223
Average yield per acre, bushels	37½
Fodder crops (other than lucerne or grasses)—	
Maize	85
Rape	118
Amber cane	20
Total	223
Irrigated pasture available for grazing	4,979
Total area available for stock	5,202
Stock carried—	
Maximum in spring—Sheep	35,000
Horses	500
Cattle	1,500
Minimum in winter—Sheep	Nil
Horses	300
Cattle	2,500
Profits from transactions in live-stock—	
Sheep (including sales of wool)	£10,893
Cattle	4,539
Agistment (principally horses)	2,215
Total	£17,647
Men employed by Board	144
Population resident on farm over 21 years of age ..	156
„ „ „ under 21 years of age	140
Total	296

					Acres.
Houses on farm owned by Board	54
" " " tenant.	1
Working horses hired by Board	35
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Horses owned by Board—					
Draught geldings	32
" brood mares	21
Light horses	14
Foals	12
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Total	79

Progress of Construction Works.

Area steam ploughed for irrigation	6,311
„ „ „ for plantations and reserves	180
„ mole-drained by steam plant	1,145
„ underdrained with pipes	619

					Miles.	Chains.
Length of main carrier embankments—cement lined					8	10
" " " "				unlined	18	33
Total	..	..	..	..	26	43

Length of subsidiary carriers—							
C.I. flumes	..	..	..	..	15	62	
C.C. flumes	..	..	..	..	4	72	
Embankments unlined	..	..	..	..	31	65	
Total	..	..	..	..	52	39	

Length of main drains	27	79
„ subsidiary drains	82	49
„ pipe drains	27	1
„ agricultural pipes	32	49
Total	170	18

Length of water pipes laid—6-inch	..	..	2	25
” ” 4-inch	..	..	11	7
” ” 3-inch	..	..	0	7
” ” 2-inch	..	..	13	46
” ” 1½-inch	..	..	1	13
” ” 1-inch	..	..	2	67
Total .. ..	..	..	31	5

			Miles.	Chains.
Length of roads formed..	32 34
„ fencing erected	284 0
„ „ wire netted	4 57
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Trees planted	No. 204,000
Average quantity of sewage delivered daily on to				
farm for year 1912-13 = in gallons ..				
= 117 acre-feet per day = 6·53 feet per annum				
over the total area available for sewage disposal,				
viz., 6,547 acres.				
Total capital cost of farm to 30th June, 1913	..			£489,740
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Net cost of sewage purification for year 1912-13..				£13,301
Population served by sewerage system ..				560,148
Net cost per head of sewage purification for year				
1912-13	5·7d.

FIRE BRIGADES BOARDS.

Constitution of Fire Brigades Boards.

Connected with the water service of the State generally, is the service of water required for fire extinction.

Under the *Fire Brigades Act* 1890, there are constituted a metropolitan fire district, controlled by the Metropolitan Fire Brigades Board, and nine country fire districts, controlled by the Country Fire Brigades Board. The supervisors are the chief officers of the respective Boards, who are aided by deputies and other assistants.

The arrangements for fire extinction in the metropolis are closely allied to those for the Melbourne water supply, the service having been provided under the clauses of the *Fire Brigades Act* 1890, and its amendments.

The Metropolitan Fire District embraces the area included in the various municipalities within a radius of ten miles from the General Post Office. The area vested in the Melbourne and Metropolitan Board of Works is included in this area, but the Metropolitan Fire Brigades Board has jurisdiction over portions of the shires of Wyndham, Braybrook, Keilor, Broadmeadows, Heidelberg, Templestowe, Nunawading, Mulgrave, and Moorabbin within the 10-mile radius, not vested in the Melbourne and Metropolitan Board of Works. The Metropolitan Fire District has been extended, and now includes the greater portion of the shire of Moorabbin. It extends in a southerly direction as far as and includes the township of Mordialloc.

The Metropolitan Fire Board is composed of nine members, of whom three are appointed by the Governor in Council, three by the municipal councils, and three by the insurance companies.

Powers of the Board. For the purpose of extinguishing any fire, the chief officers of the fire brigades may in the areas under their respective control “cause water to be shut off from any main or pipe in order to obtain a greater pressure and supply of water for the purpose

of extinguishing any fire, and no person or body having the management of any water supply shall be liable to any penalty or claim by reason of any interruption of the supply of water occasioned by compliance with the provisions of this section."

Another section of the Fire Brigades Act provides that "each Board, its officers and servants, any local committee, its officers and servants, and any brigade registered under this Act shall have the use of all water mains, water plugs, valves, pipes, vested in or belonging to the Board of Land and Works, or any public or municipal corporation, or local body whatsoever, and of all water therein, or in any well or tank, free of charge, for the purpose of extinguishing any fire, or for the purpose of drills, competitions, and practice, conducted under the authority of either board or any local committee."

Local councils have the right, in the interests of fire prevention, with the approval of the Governor in Council, of making, altering, or repealing by-laws for the purpose of regulating the height of all buildings erected in their own municipality, or in any part of it, and also for providing means of escape from such buildings during a fire.

The general duties of the Fire Brigades Boards are defined to be those "of taking, superintending, and enforcing all necessary steps for the extinguishment of fires, and for the protection of life and property in case of fire, and the general control of all stations and of all fire brigades shall be vested in the Boards for the metropolis and country districts respectively. The Boards may purchase or lease property for fire brigade stations, and control the formation of permanent and volunteer fire brigades, and schools of instruction, the maintenance of fire alarms, and the establishment of communication, telephonic and other."

The Metropolitan and Metropolitan Board of Works under the *Water Act* 1890 must, upon the request of any municipal council within its boundaries, fix proper fire plugs, in the main and other pipes belonging to the Board at convenient distances, and at such places as the Board may consider proper and convenient for the supply of water for extinguishing any fire which may break out within its limits. The cost of fixing fire plugs and notice boards, together with the cost of their maintenance, must be defrayed by the municipal council within whose limits the fire plug is fixed. The Board may also fix fire plugs for private owners, provided they pay the cost and maintenance.

The Melbourne and Metropolitan Board of Works is bound to keep all its pipes, to which fire plugs are affixed, charged with water, unless prevented by unusual drought or other unavoidable cause, or during necessary repairs, and shall allow all persons at all times to take and use such water for extinguishing fires. On 30th June, 1913, the Board had fixed to its 220 miles $38\frac{1}{2}$ chains of leading mains and 1,171 miles 19 chains of reticulation mains, 2,204 pillar hydrants, 124 Tregear patent hydrants, and 14,409 ball fire plugs, viz., 14,387 Bateman and Moore (of which 1,058 are with spring) and 22 Fowler patent—a grand total of 16,737. Except in case of accident, repairs, or cleaning, these mains are kept constantly full of water under pressure.

**Outfit of the
Metropolitan
Fire Brigade.**

The Metropolitan Fire Brigades Board on 31st December, 1913, had under its control the following:—Forty-nine stations, 231 members of permanent staff, 28 members of special service staff, 7 members of clerical staff, 11 men engaged in the workshops, 150 partially paid firemen, 10 steam fire engines, 5 gasoline engines, 1 chemical engine and hose waggon combined, 2 petrol motor fire engines, 1 motor chemical engine and hose waggon combined, 1 motor salvage waggon and chemical engine combined, 1 motor combination appliance, 2 motor hose waggons, 1 motor cycle, 1 Chief Officer's motor car, 39 horse hose reels, 37 hand hose reels, 8 extension ladders and fire escapes, 6 Pompier ladders, 12 exercise and supply carts, 1 salvage van, 1 brake, 75 horses, 104,127 feet of hose, 46 hand pumps, 5 smoke helmets, 2 smoke jackets, and 251 fire alarm circuits having 827 street fire-alarms, of which 755 contained telephones, and the remaining 72 were fire alarms only. There were also 351 auxiliary boxes and 17 automatic systems in public and other buildings, 136 direct telephone lines, 58 of which were acting as fire alarms to buildings, and 25 circuits to sprinkler installations, with 51 sprinkler call transmitting instruments. The total length of wire in use outside stations for fire alarms and telephones is about 556 miles.

During 1913 the cost of maintenance of the Metropolitan Fire Brigade was £75,848, one-third being contributed by each of the contributing bodies, viz., Government of Victoria, municipalities within the Metropolitan Fire District, and the insurance companies carrying on business in that district. The municipalities' contribution is equal to 82d. in the £1 over an area wherein the property is valued at £6,389,475, and that of the insurance companies is equal to £5 1s. 8d. for every £100 of premiums on insured property. The premiums received in the Melbourne Fire District in 1912 amounted to £426,537, and the total of the payments made by the companies in 1913 for the maintenance of the fire brigade system was £21,673.

**Country Fire
Brigades
Board.**

The Country Fire Brigades Board consists of nine members. Three are appointed by the Governor in Council, two are elected by the municipal councils of the districts in which there are brigades registered under the Board, two are elected by the fire insurance companies carrying on business in such districts, and two by the registered fire brigades. The Board annually elects one of its members as president. The tenure of the Board members is two years. The Board's revenue in 1913 was £16,358, and this amount was contributed in equal portions by the Government, the municipal councils, and the insurance companies above mentioned. The expenditure for the year amounted to £15,136. There are 103 municipal councils and 65 insurance companies included in the operation of the Act. The premiums received by the insurance companies in country districts during the year 1912 amounted to £192,574, and the total of their contributions in 1913 for the up-keep of the brigades was £5,353. The total value of rateable property assessed within the Board's district in 1913 was £1,727,493. All brigades

under the control of the Board are volunteer brigades, but in the large towns a few permanent stationkeepers and watchmen are also employed. There are 121 registered brigades, and three more are about to be registered. The number of registered firemen is 2,396, but in many brigades there is, in addition to the registered firemen, a number of "reserve members." The Chief Officer and the Deputy Chief Officer of the Board frequently inspect the brigades, and also pay them "surprise visits." They report monthly to the Board as to the efficiency of the service, and in regard to the equipment necessary to be supplied. In 1913 the chief items of the plant consisted of 5 steam engines, 1 motor engine, 63 manual engines, 11 horse brakes, 61 apparatus carriages, 3 fire escapes, about 280 hose reels, and approximately 170,000 feet of canvas hose.

Particulars of receipts and expenditure of both Boards during the five years ended 30th June, 1913, are as follows:—

**REVENUE AND EXPENDITURE OF FIRE BRIGADES BOARDS :
RETURN FOR FIVE YEARS.**

	1909.	1910.	1911.	1912.	1913.
<i>Ordinary Receipts.</i>	£	£	£	£	£
Contributions — Govern- ment, Municipal, and Insurance ...	64,347	69,375	69,837	78,206	82,540
Receipts for Services ...	2,908	3,226	3,106	5,172	5,941
Interest and Sundries ...	1,649	2,141	3,039	2,109	3,725
Total ...	68,904	74,742	75,982	85,487	92,206
<i>Ordinary Expenditure.</i>					
Salaries ...	34,521	36,589	40,939	48,798	50,426
Fire Expenses ...	3,107	3,216	3,297	3,183	3,233
Administrative Charges, &c.	12,440	14,653	13,874	16,517	15,584
Plant—Purchase and Re- pairs ...	5,532	6,011	4,185	7,176	4,592
Interest ...	5,781	5,838	5,806	5,995	5,928
Sinking Fund ...	2,250	2,450	2,500	2,550	2,980
Miscellaneous ...	5,975	4,112	6,456	6,243	8,241
Total ...	69,606	72,869	77,057	90,462	90,984
<i>Loan Expenditure.</i>					
Purchase of Land and Erection of Buildings, &c.	3,203	155	72	417	..