

1913.

VICTORIA.

STATE RIVERS AND WATER SUPPLY COMMISSION.

E I G H T H
A N N U A L R E P O R T .
—
1912-13.

PRESENTED TO BOTH HOUSES OF PARLIAMENT PURSUANT TO THE PROVISIONS OF
THE WATER ACTS.

By Authority:

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STATE RIVERS AND WATER SUPPLY COMMISSION.

ANNUAL REPORT, 1912-13.

In compliance with the provisions of the Water Acts, the State Rivers and Water Supply Commission submits the following Report and Statement for the Financial Year 1912-13, and Estimates for the ensuing year.

WORKS UNDER CONTROL OF COMMISSION.

The following statement gives a brief description, summary of cost, and other particulars relative to the works controlled by the Commission.

A.—FREE HEAD-WORKS.

DESCRIPTION OF WORKS.	Capital Debt at 30th June, 1913. Exclusive of cost of Loan Flotation.
1. Broken River Works :—Casey's Weir and offtake, with about 59 chains of channel to the Broken Creek; Gowangardie Weir with offtake sluice	£ 11,853
2. Goulburn River Works :—Weir on the Goulburn River, about 9 miles above Murchison; channel therefrom, about 23½ miles, to Waranga Reservoir; and that Reservoir	732,136
3. Kerang North-West Lakes Works :—Weir on the Loddon River at its confluence with the Pyramid Creek; regulating weirs at the effluence from the Loddon of the Sheepwash and Washpen Creeks; channel from the Washpen Creek regulator to Reedy Lake, Middle Lake, Third Lake, Lake Charm, Race-course Lake, Cullen's Lake, Kangaroo Lake, and Lake Tutchewop, and to the Little Murray River, with water storage works at these lakes	9,587
4. Kow Swamp Works :—Intake from the Murray River with regulator, at the effluence of the Gunbower Creek; channel thence to the Kow Swamp Reservoir, and that Reservoir; channel along the northern side of the reservoir; channel from the outlet of the reservoir, about 23½ miles, to the left bank of the Loddon River ..	185,927
5. Lake Lonsdale Reservoir :—Reservoir at Lake Lonsdale, on the Little Wimmera River, near Ledcourt	49,054
6. Loddon River Works :—Laanecoorie Weir, on the Loddon; Bridgewater Weir, on the Loddon; Kinypanial Weir, on the Loddon	167,315
7. Long Lake Pumping Works :—Regulated intake to Lake Baker, from the Little Murray River; water storage works at Lake Baker and Long Lake, with channel connecting these lakes; pumping plant at Long Lake, with rising main thence about 7 miles to allotment 10M, parish of Kooem; system of main distributary channels, about 85 miles in length	27,346
8. Lower Wimmera Compensation Works :—Drung Drung Weir, on the Wimmera, near allotment 29, parish of Longerenong; Dimboola Weir, on the Wimmera, near Dimboola township; Antwerp Weir, on the Wimmera, at Antwerp Station home- stead; Jeparit Weir, on the Wimmera, near Jeparit township	8,558
Total	£1,194,776

B.—WATERWORKS DISTRICTS

Distributary Works within Districts under the control of the Commission.

Name of District (Including Urban Districts).	Advances made by State prior to transfer of District to Commission.	Capital Written Off by Acts 1625 and 1651.	Redemp- tion Paid to Treasury.	Balance at Debit at transfer of District to Commission, less Redemption since paid.	Capital Expendi- ture from Loans and Revenue since transfer of District to Commis- sion.	Capital Debt at 30th June, 1913.
	£	£	£	£	£	£
1. Birchip	9,051	..	491	8,560	} 94,183	162,760
2. Sea Lake	49,659	..	373	49,286		
3. Wycheproof	12,452	700	1,021	10,731		
4. Karkaroc	17,094	..	1,943	15,151	} 49,595	61,746
5. Long Lake (Free Head- works excluded)	8,173	..	421	7,752	31,597	39,349
6. Western Wimmera	217,976	132,835	13,066	72,075	25,238	97,313
7. Wimmera United	156,024	36,392	10,564	109,068	17,471	126,539
8. Tyntynder .. .. .	..	..	..	..	20,375	20,375
9. Wonthaggi .. .. .	..	..	..	..	61,846	61,846
10. Coliban	1,171,622	..	..	1,171,622	34,233	1,205,855
Wimmera Main Channels (amount being debited to districts benefited) .. .. .	..	..	..	..	60,752	60,752
	1,642,051	169,927	27,879	1,444,245	395,290	1,839,535
Carried forward						£3,034,311

WORKS UNDER CONTROL OF COMMISSION—*continued.*

Capital Debt
at 30th June,
1913.
Exclusive
of Cost of Loan
Flotation.

Brought forward £ 3,034,311

C.—IRRIGATION AND WATER SUPPLY DISTRICTS.

Distributary Works within Districts under control of the Commission.

Name of District (Including Urban Divisions).	Advances made by State prior to transfer of District to Commission.	Capital written off by Acts 1625 and 1651.	Redemption paid to Treasury.	Balance at Debt at transfer of District to Commission, less Redemption since paid.	Capital Expenditure from Loans and Revenue since transfer of District to Commission.	Capital Debit at 30th June, 1913. Exclusive of Expenditure under 'D.'
	£	£	£	£	£	£
1. Bacchus Marsh ..	14,406	8,906	243	5,257	32,104	37,361
2. Boort ..	52,939	35,259	394	17,286	218	17,504
3. Campaspe ..	57,793	52,685	305	4,803	4,073	8,876
4. Cohuna ..	79,170	49,197	335	29,638	31,716	61,354
5. Deakin ..	56,214	34,748	2,144	19,322	31,534	53,856
6. Dry Lake ..	1,704	686	299	719	..	719
7. Gannawarra ..	22,095	13,733	75	8,287	18,678	26,965
8. Gannawarra West ..	31,294	19,446	105	11,743	1,410	13,153
9. Kerang ..	70,032	35,338	674	34,020	4,631	38,651
10. Koondrook ..	47,059	30,872	1,475	14,712	55,265	69,977
11. Merbein (White Cliffs) ..	..	..	..	..	44,836	44,836
12. Nyah ..	..	..	..	..	21,205	21,205
13. Rochester ..	8,580	..	..	8,580	73,093	81,673
14. Rodney ..	223,268	149,949	5,097	68,222	116,332	184,554
15. Shepparton ..	..	..	..	..	12,588	12,588
16. Swan Hill ..	24,800	19,799	306	4,695	24,224	28,919
17. Tongala ..	9,354	..	..	9,354	46,943	56,297
18. Tragowel Plains ..	159,848	124,534	444	34,870	9,402	44,272
	858,556	575,152	11,896	271,508	531,282	802,790

802,790

D.—MAIN SUPPLY WORKS.—COST TO BE APPORTIONED TO DISTRICTS
BENEFITED ON THE BASIS OF WATER ALLOTMENT.

1. Goulburn Main Channels (exclusive of Free Head-works)—	Tentative Debts to Districts, 1912-1913—			
East Goulburn ..	Rodney ..	..	£120,000	151,296
Waranga Reservoir to Campaspe ..	Tragowel Plains ..	..	100,000	
Campaspe to Serpentine ..	Rochester ..	..	60,000	240,918
Main Distributary Channels ..	Deakin ..	..	24,000	
	Shepparton ..	..	13,000	191,268
	Tongala ..	..	10,000	
			£327,000	13,368
2. Pyke's Creek and Werribee Scheme—				596,850
Pyke's Creek Reservoir ..	Bacchus Marsh ..	..	£44,000	62,959
Diverting Weir and Distributary Works ..				29,973
Lerderberg River Works ..				475
				93,407

Carried forward £4,527,358

WORKS UNDER CONTROL OF COMMISSION— <i>continued.</i>				Capital Debit at 30th June, 1913, Exclusive of Cost of Loan Flotation.
Brought forward				£ 4,527,358
E.—WATERWORKS TRUSTS DISTRICTS.				
DISTRICTS HELD IN TRUST BY THE COMMISSION.				
The districts of the undermentioned Trusts have been placed under the Commission's control, in pursuance of Section 36 of the <i>Water Act</i> 1909, Section 10 of the <i>Carrum Drainage Works Act</i> 1905, and Section 278 of the <i>Water Act</i> 1905.				
Name of Trust.	Total Advances by State.	Capital written off by Acts 1825 and 1851.	Redemption paid to Treasury.	Capital Debit at 30th June, 1913.
	£	£	£	£
1. Avoca Water Trust	11,455	2,494	719	8,242
2. Carrum Waterworks Trust	25,732	7,732	1,338	16,662
3. Loddon United Waterworks Trust	21,334	1,717	1,553	18,064
	58,521	11,943	3,610	42,968
Grand Total				£ 4,527,358

LANDS SUPPLIED WITH WATER WITHIN THE STATE.

The area of country lands within the State artificially supplied with water for domestic and ordinary use and for watering stock is, approximately, 20,500 square miles, equal to about 13,120,000 acres. The extent of land under irrigated culture, for all kinds of crop, is 249,983 acres, an increase of 20,150 acres over the area irrigated in the previous year. The above total includes about 24,000 acres, watered under yearly permits granting authority to divert water from streams throughout the State. The number of separate towns supplied, exclusive of the city of Melbourne and its suburbs, is 139, as shown in the following statement:—

Controlling Authorities.	Number of Town Supplies.	Estimated Population Served.
Commission	32	69,000
Waterworks Trusts	90	150,000
Local Governing bodies	17	69,000
Totals	139	288,000

LANDS UNDER IRRIGATED CULTURE.

The two statements herewith show the extent of Areas under Irrigation for last year in detail, and for the last four years totalled for comparative purposes.

STATEMENT OF THE EXTENT OF IRRIGATION AND OF AREAS OF DIFFERENT KINDS OF CROPS WATERED—YEAR 1912-13.

Name of District.	Area under Irrigation (Acres).							Total.
	Cereals.	Lucerne grown for Pasture and Hay.	Sorghum and other Annual Fodder Crops.	Pastures.	Vineyards, Orchards, and Gardens.	Fallows.	Miscellaneous.	
<i>Supplied from Goulburn State Works.</i>								
Shepparton	310	2,797	403	185	415	230	6	4,346
Rodney	8,440	16,758	808	7,579	4,186	793	47	38,611
Deakin	2,365	1,744	206	1,637	52	95	..	6,099
Tongala	1,197	2,079	316	842	164	357	..	4,955
Rochester	722	3,683	765	1,733	200	666	..	7,769
Dingee .. .. .	..	79	4	..	9	..	..	92
Tragowel Plains	12,913	501	3,820	17,302	29	363	..	34,928
Totals	25,947	27,641	6,322	29,278	5,055	2,504	53	96,800
<i>Supplied from Kow Swamp State Works.</i>								
Kerang	7,994	816	2,871	13,331	18	60	332	25,422
Dry Lake	44	..	43	435	4	..	2	528
Lands supplied direct (outside Districts)	1,422	1,939	278	845	12	..	8	4,504
Totals	9,460	2,755	3,192	14,611	34	60	342	30,454
<i>Supplied from Loddon State Works.</i>								
Boort	5,618	413	1,422	8,219	38	..	..	15,710
Tragowel Plains	1,174	45	347	1,573	3	33	..	3,175
Totals	6,792	458	1,769	9,792	41	33	..	18,885
<i>Supplied from other State Works.</i>								
Bacchus Marsh .. .. .	..	1,070	77	626	23	36	26	1,858
Campaspe	141	717	3	112	22	..	..	995
Cohuna	857	4,278	955	7,078	134	349	49	13,700
Gannawarra	1,966	852	982	3,543	50	500	68	7,961
Gannawarra West	2,168	370	805	1,799	3	48	30	5,223
Koondrook	5,432	730	1,163	6,234	66	108	672	14,405
Merbein	1,412	540	..	..	2,571	..	470	4,993
Nyah	508	174	74	145	532	102	34	1,569
Swan Hill	2,556	3,056	608	784	54	576	13	7,647
Western Wimmera	1	15	20	35	943	..	9	1,023
Totals	15,041	11,802	4,687	20,356	4,398	1,719	1,371	59,374
Lands supplied from Kerang North-West Lakes	2,082	787	561	1,096	..	..	20	4,546
First Mildura	1,000	680	..	..	10,529	..	..	12,209
Supplied from Coliban State Works	344	307	216	365	2,203	134	63	3,632
Private Diversions in Kerang District	3,444	40	151	1,206	7	150	85	5,083
Other Private Diversions throughout the State	Details not available.							19,000
Grand Totals, 1912-13	64,110	44,470	16,898	76,704	22,267	4,600	1,934	249,983
Grand Totals, 1911-12	52,002	37,475	12,952	84,858	21,069	6,319	658	229,833

COMPARATIVE STATEMENT OF THE EXTENT OF IRRIGATION, 1909-10 TO 1912-13.

	Area under Irrigation (Acres).			
	1909-10.	1910-11.	1911-12.	1912-13.
Goulburn State Works	41,708	28,849	76,740	96,800
Kow Swamp State Works	17,904	23,650	17,395	30,454
Loddon State Works	14,363	26,862	21,483	18,885
Other State Works	32,624	41,896	67,042	59,374
Kerang North-West Lakes	4,828	3,496	13,543	4,546
First Mildura Trust Works	12,000	12,000	11,379	12,209
Coliban State Works	2,997	3,160	2,937	3,632
Private Works in Kerang District	3,347	2,944	4,814	5,083
Other Private Works throughout the State	8,000	11,000	14,500	19,000
Totals	137,771	153,857	229,833	249,983

VALUATIONS, RATES, AND COMPULSORY IRRIGATION CHARGES.

Hereunder are set forth the whole of the districts supplied by the Commission with water for domestic and ordinary use, and for watering cattle or other stock, together with the annual value of the lands and tenements in such districts, and the rates and compulsory irrigation charges made. An estimate of the number of persons dwelling in such districts is also appended.

During the year rates were for the first time made in the newly constituted Waterworks District of Harcourt (Coliban), and the urban districts of Beulah, Corop, Hopetoun, Jeparit, Koondrook, and Woomelang.

In nineteen districts the lands were, for the purpose of making and levying rates, arranged in divisions (not more than three in number) in accordance with the relative benefits derived by such lands from the works.

In twelve districts the Commission made and levied compulsory irrigation charges. In Merbein and Nyah, the charge levied was, in pursuance of the powers given by the *Murray Settlements Act 1907*, fixed for the year at three-quarters of the estimated amount required; next year there will be no deduction in the amount of the charge. It is intended to levy during the ensuing year the compulsory irrigation charge in the Dingee and Tongala Districts.

A.—VALUATIONS AND RATES.

Districts Supplied with Water for Domestic and Ordinary Use and for Watering Cattle or other Stock.	Annual Value of Lands and Tenements.	Rate in the £ made during year ended 30th June, 1913.	Period of Rate.	Estimated Number of Persons dwelling in District.
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IRRIGATION AND WATER SUPPLY DISTRICTS.

	Valuation by Commission.			
	£	s. d.		
1. BACCHUS MARSH ..	11,422	.. 1 0	1st July, 1912, to 30th June, 1913	385
2. BOORT ..	15,483	1st Division .. 2 0 2nd Division .. 1 0	" " "	735
3. CAMPASPE ..	9,857	1st Division .. 1 8 2nd Division .. 0 10 3rd Division .. 0 5	" " "	470
4. COHUNA ..	18,121	1st Division .. 2 0 2nd Division .. 1 0	" " "	1,259
5. DEAKIN ..	63,206	1st Division .. 1 0 2nd Division .. 0 6 3rd Division .. 0 3	" " "	4,130
6. DRY LAKE ..	250	(No rate made)	" " "	11
7. GANNAWARRA ..	7,381	1st Division .. 2 0 2nd Division .. 1 0	1st July, 1912, to 30th June, 1913 " " "	350
8. GANNAWARRA WEST ..	3,468	.. 3 0	" " "	166
9. KERANG ..	17,653	1st Division .. 2 6 2nd Division .. 1 3 3rd Division .. 0 7½	" " "	865
10. KOONDROOK ..	11,285	1st Division .. 2 0 2nd Division .. 1 0	" " "	416
11. KOYUGA ..	2,100	.. 1 0	" " "	249
12. MERBEIN ..	1,704	.. 2 0	" " "	846
13. NYAH ..	859	.. 2 0	" " "	210

A.—VALUATIONS AND RATES—*continued.*

Districts Supplied with Water for Domestic and Ordinary Use and for Watering Cattle or other Stock.	Annual Value of Lands and Tenements.	Rate in the £ made during year ended 30th June, 1913.	Period of Rate.	Estimated Number of Persons dwelling in District.
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IRRIGATION AND WATER SUPPLY DISTRICTS—*continued.*

	Valuation by Commission. £	Rate in the £ made during year ended 30th June, 1913.		Period of Rate.	Estimated Number of Persons dwelling in District.
		s.	d.		
14. ROCHESTER	28,175	1	0	1st July, 1912, to 30th June, 1913	1,630
		2nd Division ..	0 6	" " "	
		3rd Division ..	0 3	" " "	
15. RODNEY	143,902	1	0	" " "	4,500
		2nd Division ..	0 6	" " "	
		3rd Division ..	0 3	" " "	
16. SHEPPARTON	3,142	..	1 0	" " "	819
17. SWAN HILL	6,645	..	2 0	" " "	470
18. TONGALA	13,234	..	1 0	" " "	687
19. TRAGOWEL PLAINS ..	32,818	1	0	" " "	1,050
		2nd Division ..	0 6	" " "	

WATERWORKS DISTRICTS.

	£	Rate in the £ made during year ended 30th June, 1913.		Period of Rate.	Estimated Number of Persons dwelling in District.
		s.	d.		
20. AXE CREEK	1,314	..	2 0	1st July, 1912, to 30th June, 1913	300
21. BIRCHIP	23,893	1st Division ..	2 0	" " "	2,460
		2nd Division ..	1 0	" " "	
		3rd Division ..	0 6	" " "	
22. HARCOURT	5,552	..	1 6	" " "	500
23. KARKAROOC	80,770	1st Division ..	1 6	" " "	2,350
		2nd Division ..	0 9	" " "	
		3rd Division ..	0 4½	" " "	
24. LONG LAKE	42,310	1st Division ..	2 6	" " "	1,700
		2nd Division ..	1 3	" " "	
		3rd Division ..	0 7½	" " "	
25. SEA LAKE	64,287	1st Division ..	2 0	" " "	2,600
		2nd Division ..	1 0	" " "	
		3rd Division ..	0 6	" " "	
26. TYNTYNDER	12,390	1st Division ..	2 9	" " "	700
		2nd Division ..	1 4½	" " "	
		3rd Division ..	0 8¼	" " "	
27. WESTERN WIMMERA ..	240,636	1st Division ..	1 0	" " "	9,900
		2nd Division ..	0 6	" " "	
		3rd Division ..	0 3	" " "	
28. WIMMERA UNITED ..	256,055	1st Division ..	1 0	" " "	8,900
		2nd Division ..	0 6	" " "	
		3rd Division ..	0 3	" " "	
29. WYCHEPROOF	41,282	1st Division ..	2 0	" " "	2,150
		2nd Division ..	1 0	" " "	
		3rd Division ..	0 6	" " "	

URBAN DIVISIONS AND DISTRICTS.

	Municipal Valuation. £	Rate in the £ made during year ended 30th June, 1913.		Period of Rate.	Estimated Number of Persons dwelling in District.
		s.	d.		
30. BACCHUS MARSH	6,425	..	1 6	1st July, 1912, to 30th June, 1913	1,400
31. BECLAH	3,680	..	1 6	1st January, 1913, to 30th June, 1913	550
32. BIRCHIP	5,542	..	2 6	1st July, 1912, to 30th June, 1913	900
33. COROP	425	..	2 0	" " "	90
34. DIMBOOLA	5,185	..	1 9	" " "	800
35. HOPEFOUN	2,915	..	2 9	" " "	450
36. JEPARIT	3,098	..	2 6	" " "	500
37. KOONDROOK	2,141	..	2 0	1st November, 1912, to 30th June, 1913	450
38. LAKE BOGA	1,165	..	3 0	1st July, 1912, to 30th June, 1913	270
39. MINYIP	2,751	..	3 0	" " "	650
40. NATIMUK	2,382	..	1 6	" " "	420

A—VALUATIONS AND RATES—*continued.*

Districts Supplied with Water for Domestic and Ordinary Use and for Watering Cattle or other Stock.	Annual Value of Lands and Tenements.	Rate in the £ made during year ended 30th June, 1913.	Period of Rate.	Estimated Number of Persons dwelling in District.
URBAN DIVISIONS AND DISTRICTS—<i>continued.</i>				
	Municipal Valuation. £	<i>s. d.</i>		
41. RAINBOW	6,637	.. .. 2 3	1st July, 1912, to 30th June, 1913	800
42. RUPANYUP	1,939	.. .. 3 0	" " "	450
43. SEA LAKE	2,560	.. .. 3 0	" " "	500
44. WONTHAGGI	18,481	.. .. 1 9	" " "	4,500
45. WOOME LANG	2,350	.. .. 1 6	1st February, 1913, to 30th June, 1913	400
46. WYCHEPROOF	3,127.	.. .. 2 6	1st July, 1912, to 30th June, 1913	700
COLIBAN SYSTEM.				
		<i>s. d.</i>		
47. COLIBAN	313,902	On Valuation up to £300 .. 1 6 (Minimum 20s.) From £301 up to £700 .. 1 3 From £701 on .. 1 0 Vacant lands .. 1 6	1st July, 1912, to 30th June, 1913 " " " " " " " " "	65,000
WATERWORKS TRUSTS.				
	£	<i>s. d.</i>		
48. AVOCA	29,671	.. .. 0 4½	1st January, 1913, to 31st December, 1913	1,600
49. CARRUM	16,310	1st Division .. 4 0 2nd Division .. 1 6 3rd Division .. 0 3 4th Division .. 0 6 5th Division .. 3 0	" " " " " " " " " " " "	760
	Valuation by Commission. £			
50. LODDON UNITED	74,061	1st Division .. 1 0 2nd Division .. 0 6 3rd Division .. 0 3	" " " " " " " " "	2,500

B.—COMPULSORY IRRIGATION CHARGES.

Irrigation and Water Supply District.	Area of District in Acres.	Area at present Irrigable in Acres.	Water Rights apportioned (including extra Rights) in Acre-feet.	Compulsory Charge per Acre-foot of Water Right.	Period of Charge.
BACCHUS MARSH	6,706	3,300	3,300	20s.	1st October, 1912, to 30th April, 1913
COHUNA	34,806	23,623	23,623	5s.	" " "
GANNAWARRA	28,125	12,545	12,545	5s.	" " "
KOONDROOK	48,905	14,416	14,416	5s.	" " "
KOYUGA	4,725	3,437	3,437	5s.	" " "
ROCHESTER	84,523	21,113	21,113	5s.	" " "
RODNEY	264,972	180,412	46,512	5s.	" " "
SHEPPARTON	3,472	3,460	3,460	5s.	" " "
SWAN HILL	13,409	11,055	11,055	5s.	" " "
TRAGOWEL PLAINS	180,648	125,619	25,138	6s.	" " "
MERBEIN	5,874	5,275	13,150	9s. (Three-quarter charge)	1st September, 1912, to 30th April, 1913
NYAH	2,931	2,411	6,009	9s. (Three-quarter charge)	1st October, 1912, to 30th April, 1913

CONTRACTS.

STATEMENT OF CONTRACTS ENTERED INTO DURING THE YEAR ENDED 30TH JUNE, 1913.

No.	Name of Contractor.	Work or Supply.	Amount (Loan and Vote).		
			£	s.	d.
948	G. Weymouth Pty. Ltd.	Centrifugal Pump, Woomelang	66	10	0
949	Ernest Schultz	Gas Engine and Suction Gas Plant, Woomelang	360	3	0
950	Determined		215	0	0
951	J. Gibson (W. and J. Gibson)	Portion Beulah West Channel, Karkaroc			
952	Jas. Sayers	Portion West Meatian Channel, Long Lake	130	0	0
953	Stephen Connor, jun.	Portion Koro-Ganeit Channel, Tyntynder	87	5	10
954	J. Hickey	Portion Southern Low-level Channel, Tyntynder	176	11	6
955	J. Morris	Portion McRae's Channel, Tyntynder	61	5	0
957	F. Wainwright	Portion Binn's Channel, Sea Lake	46	10	5
958	Thos. J. Kensley	Portion Southern Low-level Channel, Tyntynder	151	18	9
960	C. H. Dunkley and Thos. Tonkin	Portion West Meatian Channel, Long Lake	119	15	10
961	Thos. Tonkin and C. H. Dunkley	Portion West Meatian Channel, Long Lake	148	15	8
962	A. W. Butler (Irwin and Butler)	Portion Dennyng Channel, Karkaroc	158	0	0
963	A. W. Butler (Irwin and Butler)	Portion Dennyng Channel, Karkaroc	182	10	0
966	F. W. Kent	Portion Cannie Channel, Long Lake	113	0	0
967	Determined				
968	M. Malone	Kavanagh Channel, Rodney	774	3	8
969	A. Rangott and W. Rangott	Portion Southern Low-level Channel, Tyntynder	163	0	10
970	Jas. Crothers	Portion Katyil Channel, Western Wimmera	171	12	11
971	Jas. Crothers	Portion Katyil Channel, Western Wimmera	96	5	0
972	A. Rangott	Portion Southern Low-level Channel, Tyntynder	248	11	8
973	A. J. Fisher	Portion Polishbet Channel, Tyntynder	109	2	11
974	A. J. Fisher	Portion Polishbet Channel, Tyntynder	106	14	2
975	A. J. Fisher	Portion Polishbet Channel, Tyntynder	95	17	6
976	Hugh Caldwell	Portion Southern Low-level Channel, Tyntynder	221	12	11
977	Joseph Nixon and Sons	Cast-iron Pipes, &c., Woomelang, Hopetoun	892	1	8
978	C. O. Munzel	Firewood, Cohuna	262	13	11
979	S. M. M. O'Brien	Portion Nullawil Channel, Sea Lake	109	13	8
980	Determined				
981	Determined				
982	P. Lawless	Portion Tittybong Channel, Sea Lake	109	15	0
983	P. Lawless	Portion Tittybong Channel, Sea Lake	102	10	0
984	Thos. O'Keefe	Portion Southern Low-level Channel, Tyntynder	156	10	10
985	Lewis J. O'Connor	Portion Chillingollah Town Channel, Tyntynder	97	7	11
986	Robt. Heath	Portion McRae's Channel, Tyntynder	127	3	9
987	Harold Adams	Portion McRae's Channel, Tyntynder	119	17	1
988	M. McGuinness (J. and M. McGuinness)	Storage Tank, Kancira	505	17	4
989	H. W. L. Tucker	Storage Tanks, Turriff	281	15	1
993	C. T. Storer (C. T. and H. Storer)	Portion Turriff Channel, Karkaroc	303	6	8
994	Joseph Nixon and Sons	Cast-iron Pipes, &c., Cohuna	872	4	4
995	Australian Portland Cement Co.	Portland Cement (3,000 casks)	2,025	0	0
996	P. Rogers	Portion Southern Low-level Channel, Tyntynder	154	17	4
998	M. McGuinness	Storage Tank, Quambatook	637	6	4
999	Ernest H. Hall	Portion Murnungin Channel, Long Lake	191	0	10
1000	W. Rangott	Southern Low-level Channel, Tyntynder	366	6	8
1001	R. Guilmartin	Portion Ree's Channel, Long Lake	149	9	7
1006	H. A. Hunt	Water Bailiff's Quarters, Cohuna	251	8	6
1008	W. Munn and E. Traeger	Portion Main D. and S. Channel, White Cliffs	333	4	11
1009	P. P. Clutterbuck Bros.	Oil Engine, Cohuna Township	188	13	10
1010	Welch, Perrin, and Co.	Centrifugal Pump, Cohuna Township	50	0	0
1012	G. W. Kelly and Lewis	Lifting Gear, Kow Swamp State Works	144	8	0
1013	W. H. Lewis	Firewood, Nyah	105	0	0
		Carried forward	12,542	0	10

CONTRACTS ENTERED INTO DURING THE YEAR ENDED 30TH JUNE, 1913—continued.

No.	Name of Contractor.	Work or Supply.	Amount (Loan and Vote).
			£ s. d.
		Brought forward	12,542 0 10
1014	G. Long	Firewood, Nyah	106 10 0
1015	A. E. Hoffmann	Portion Katyl Channel, Western Wimmera	174 17 1
1016	J. Nicholas	Firewood, Nyah	105 0 0
1017	Angus McInnes	Portion Southern Low-level Channel, Tyntynder	312 1 8
1018	G. Weymouth Pty. Ltd.	Centrifugal Pump, Beulah	66 10 0
1019	H. W. L. Tucker	Storage Tank, Berriwillock	355 1 10
1020	F. Harris	Portion Springfield Channel	146 15 0
1021	Wm. McNamara	Portion Tittybong Channel, Sea Lake	187 5 6
1023	J. H. Mason	Portion Kalpienung Channel, Sea Lake	142 5 0
1024	Determined		606 12 3
1026	J. H. Gamble (Gamble Bros.)	Storage Tanks, Chillingollah	
1027	Joseph Kerr	Water Bailiff's Quarters, Nyah	295 10 0
1028	M. Moloney	Portion Kalpienung Channel, Sea Lake	163 15 0
1029	T. W. Kent	Portion Cannie Channel, Long Lake	161 8 4
1030	W. F. McPherson	Firewood, Sea Lake	32 10 0
1031	Geo. Beggs	Portion Nyah Main Centre Drainage Channel	145 9 0
1032	W. E. Still	Portion Minapre Extension Channel, Karkaroc	125 0 0
1033	E. J. McCredden	Portion Minapre Extension Channel, Karkaroc	119 17 1
1034	W. E. Still	Portion Minapre Extension Channel, Karkaroc	172 0 0
1036	J. Wilson	600 Channel Meter Wheels	1,185 10 0
1037	W. J. Crothers	Portion Pullut Channel, Karkaroc	139 6 8
1038	W. J. Crothers	Portion Pullut Channel, Karkaroc	128 2 1
1039	W. J. Crothers	Portion Pullut Channel, Karkaroc	167 10 0
1041	William Dole	Portion Kalpienung Channel, Sea Lake	147 10 0
1042	V. Becker	Portion Pullut Channel, Karkaroc	138 10 0
1043	V. Becker	Portion Pullut Channel, Karkaroc	170 10 0
1044	A. J. Fisher	Portion Smith's Channel, Sea Lake	129 10 0
1045	A. J. Fisher	Portion Smith's Channel, Sea Lake	212 15 0
1046	W. H. J. Connell	Portion Koro-Ganeit Channel, Tyntynder	140 10 0
1048	Robison Bros. and Co. Pty. Ltd.	Centrifugal Pump, Hopetoun	134 8 0
1049	W. J. Theobald	Portion Springfield Channel, Sea Lake	160 1 0
1050	H. W. L. Tucker	Portion Main Eastern Channel, Wimmera-Mallee	532 6 5
1051	W. Mathers	Portion Main Eastern Channel, Wimmera-Mallee	300 5 0
1052	W. Mathers	Portion Main Eastern Channel, Wimmera-Mallee	391 10 0
1054	H. B. Irwin	Portion Main Eastern Channel, Wimmera-Mallee	393 9 1
1056	W. Schmedes	Firewood, Maldon	247 9 0
1057	W. Rangott	Portion Murnungin Channel, Long Lake	138 7 11
1058	W. Rangott	Portion Murnungin Channel, Long Lake	145 3 4
1059	W. Rangott	Portion Murnungin Channel, Long Lake	51 9 2
1060	M. McGuiness	Portion Main Eastern Channel, Wimmera-Mallee	471 12 6
1061	A. A. Moloney	Portion Kalpienung Channel, Sea Lake	168 15 0
1062	Walter Winnett	Portion Main Eastern Channel, Wimmera-Mallee	540 0 0
1063	Thos. W. Kent	Portion Cannie Channel, Long Lake	114 15 0
1064	C. Poulton	Portion Pullut Channel, Karkaroc	130 0 0
1065	Bladen and Wallace	Timber Tide Flap, McCool's Drain, Carrum	160 0 9
1066	C. Poulton	Portion Pullut Channel, Karkaroc	139 5 0
1067	C. Poulton	Portion Pullut Channel, Karkaroc	136 10 0
1068	Jas. McDonald	Portion Tyrrell West Channel, Sea Lake	113 15 0
1069	Australian Portland Cement Co.	Portland Cement (1,500 casks)	862 10 0
1070	David Mitchell	Portland Cement (1,500 casks)	900 0 0
1071	Richard Carty	Portion Tyrrell West Channel, Sea Lake	138 18 9
1072	Joseph Nixon and Sons	Cast-iron Pipes, &c., Coliban	208 3 3
1073	A. Chandler	Portion Kalpienung Channel, Sea Lake	170 5 0
1074	J. Wellington	Portion Pullut Channel, Karkaroc	129 5 0
1075	Ernest Hall	Portion Cannie Channel, Long Lake	68 15 0
1076	Joseph Torney	Excavation Box Tank, Walpeup East District	139 15 0
1077	R. Gibbon	Levee Bank, Gunbower Channel, Kow Swamp	624 13 7
1078	Murphy Bros.	Portion Distributary Channel, Gunbower West	103 1 11
1079	Dunstan Bros.	Portion Distributary Channel, Gunbower West	149 0 0
1080	Wilson Bros. and Hildebrand	Distributary Channel, Gunbower West	114 5 6
1081	W. J. Theobald	Portion Springfield Channel, Sea Lake	169 0 0
1082	W. J. Crothers	Portion Joop Channel, Western Wimmera	153 5 0
		Carried forward	26,920 2 6

CONTRACTS ENTERED INTO DURING THE YEAR ENDED 30TH JUNE, 1913—continued.

No.	Name of Contractor.	Work or Supply.	Amount (Loan and Vote).		
			£	s.	d.
		Brought forward	26,920	2	6
1083	W. J. Crothers	Portion Joop Channel, Western Wimmera ..	148	0	0
1084	Australian Portland Cement Co. ..	Portland Cement (1,500 casks)	862	10	0
1085	James McGuinness	Twin Earthen Storage Tanks, Watchem ..	640	12	4
1086	W. Mathers	Portion Main Eastern Channel, Wimmera-Mallee ..	183	18	9
1087	W. Mathers	Portion Main Eastern Channel, Wimmera Mallee ..	175	4	5
1088	W. Mathers	Portion Main Eastern Channel, Wimmera-Mallee ..	176	6	11
1089	W. Mathers	Portion Main Eastern Channel, Wimmera-Mallee ..	159	16	8
1090	Joseph Nixon and Sons	C.I. Pipes, Coliban	186	8	6
1094	J. Ahern Wentworth	Water Bailiff's Quarters, Werribee	64	0	0
1095	A. A. Maloney	Portion Boorong Channel, Sea Lake	160	5	0
1096	A. A. Maloney	Portion Boorong Channel, Sea Lake	171	0	0
1097	J. Hogan	Portion Boorong Channel, Sea Lake	151	6	0
1098	J. Hogan	Portion Boorong Channel, Sea Lake	151	16	6
1099	Jas. O'Grady	Pre-Heater, &c., Merbein	143	0	0
1101	J. Henry	Firewood, Koondrook	137	10	0
1102	E. Greenway	Firewood, Koondrook	131	5	0
1103	J. B. Greenway	Firewood, Koondrook	262	10	0
1104	Edward H. North	Firewood, Cohuna	775	0	0
1105	D. V. Mannix	Firewood, Cohuna	266	13	4
1106	Alex. McInnes	Firewood, Cohuna	533	6	8
1107	F. O. Wallin	Firewood, Swan Hill	606	5	0
1110	M. Moloney	Portion Carruther's Channel, Sea Lake ..	119	15	0
1111	M. Moloney	Portion Carruther's Channel, Sea Lake ..	118	10	0
1112	M. Connelly	Channel Excavation, Goulburn Levees ..	977	5	0
1113	Australian Portland Cement Co. ..	Portland Cement (3,000 casks)	1,650	0	0
1114	Mephan Ferguson Pty. Ltd.	Steel Pipes, &c., Eaglehawk Syphon ..	1,233	5	0
1115	H. Caldwell	Portion West Meatian Channel, Long Lake ..	155	5	0
1116	J. W. Chatham	Portion Chiprick Channel, Karkarooc ..	148	5	0
1117	J. W. Chatham	Portion Chiprick Channel, Karkarooc ..	132	15	0
1118	J. W. Chatham	Portion Chiprick Channel, Karkarooc ..	61	15	0
1119	H. B. Irwin	Portion Hopetoun Channel, Karkarooc ..	181	0	0
1120	H. B. Irwin	Portion Hopetoun Channel, Karkarooc ..	132	0	0
1121	H. B. Irwin	Portion Hopetoun Channel, Karkarooc ..	172	5	0
1122	G. Long	Firewood, Nyah	72	3	3
1123	C. J. Nicholas	Firewood, Nyah	71	17	6
1124	Henry Moorhouse	Survey, Merbein District and Mildura Concession Lands	210	0	0
		Total	38,445	18	4

STATEMENT OF CONTRACTS ENTERED INTO DURING THE YEAR ENDED 30TH JUNE, 1913, IN CONNEXION WITH BORING FOR WATER, CONSTRUCTION OF PUBLIC TANKS, AND CLEARING AND FORMING ROADS IN THE MALLEE. THESE WORKS ARE BEING CARRIED OUT BY THE COMMISSION, BUT THE EXPENDITURE IS MET BY EITHER THE LANDS DEPARTMENT OR THE PUBLIC WORKS DEPARTMENT.

No.	Name of Contractor.	Work or Supply.	Amount (Loan and Vote).		
			£	s.	d.
945	John O'Loughlin and Co.	Dingo Tank, Ouyen District	261	16	11
946	T. Tonkin and Co.	Burnell Tank, Ouyen District	242	17	0
947	W. L. Mead and Co.	Tank near Walpeup Railway Station	1,034	7	0
956	Wm. McCahon and Co.	Nyang Tank, Ouyen District	247	6	4
964	J. E. Mills and Co.	Toothache Tank, Ouyen District	215	19	2
		Carried forward	2,002	6	5

STATEMENT OF CONTRACTS ENTERED INTO DURING THE YEAR ENDED 30TH JUNE,
1913, IN CONNEXION WITH BORING FOR WATER, ETC.—*continued.*

No.	Name of Contractor.	Work or Supply.	Amount (Loan and Vote).		
			£	s.	d.
		Brought forward	2,002	6	5
965	W. C. Duthie and Co.	Blue Mountain Tank, Ouyen District	213	0	0
990	W. B. Scott and Co.	German Plains Tank, Ouyen District	218	10	1
991	John O'Donnell	Yellumjip Tank, Ouyen District	1,000	0	0
992	Arthur H. Kay	Office at Ouyen	19	15	0
997	Joseph Torney	Blackfellow's and Ginquam Tanks	351	2	6
1002	C. V. Coghill and H. Wharton	Miller's Tank, north of Lake Tyrrell	234	16	1
1003	Joseph Simpson	Box Reserve Tank, north-east of Lake Tyrrell	267	7	0
1004	W. McKinnon	Winnambool New Tank, north of Lake Tyrrell	233	15	0
1007	R. W. Adams	Road Clearing, Gunamalary and Tutye	172	10	0
1011	Jas. Thos. Gregor	Natural Lake Tank, Walpeup East	208	10	0
1022	Featherby Bros.	Walpeup South Tank	234	11	6
1025	W. B. Bennett	Possum Flat Tank, north of Chillingollah	248	7	5
1035	James Rowett	Kulwyne Tank, north of Lake Tyrrell	202	16	3
1040	H. Wharton and J. Walker	Lullah Tank, south-west of Manangatang	85	16	8
1047	H. Wharton and C. V. Coghill	Enlarging Manangatang Tank	122	10	0
1053	Joseph Torney	Kooralong Tank, Mildura Line Settlement	229	13	5
1055	Charles P. Mills	Nulkwyne Tank, Ouyen District	279	11	8
1091	Stewarts and Lloyds Ltd.	G.I. Piping, &c., Boinka	109	4	11
1092	James Alston	Windmills, &c., Boinka	120	0	0
1093	Danks and Son Pty. Ltd.	Tank Stands, &c., Boinka	140	8	9
1100	Murphy Bros.	Earthen Storage Tanks, Dennying and Dering	668	0	0
1108	Murphy Bros.	Earthen Storage Tanks, Tiega, Burnell, &c.	567	8	5
1109	F. W. Kurz	Excavation Storage Tanks, Wagant, Woorneck, &c.	635	17	6
		Total	8,565	18	7

In addition to the works carried out under contracts, some channel work was, as in previous years, carried out as piece-work at current rates. The expenditure in this respect amounted to about £6,000 for the year.

WORKS CARRIED ON OR COMPLETED DURING THE YEAR
ENDED 30TH JUNE 1913.

COLIBAN DISTRICT

During the year the main Coliban Channel between Malmsbury and Bendigo was cleaned out and put in order. A number of flumes were also relined and repaired. A scheme has been prepared for improvement of the quality of the supply to Castle-maine, and several pipe extensions were carried out, the pipes being extended to Barker's Creek. In North Bendigo several of the street mains which had proved too small were replaced with 4-in. cast-iron pipes. In the new Waterworks District of Harcourt, comprising the lands commanded by the Harcourt Race, which was constituted last year, it is proposed to construct some further races, the cost of which will be defrayed out of the proceeds of the new rate now being levied.

IRRIGATION AND WATER SUPPLY DISTRICTS.

RODNEY DISTRICT.

Over 15 miles of new channels were constructed to supply an area of some 6,000 acres of newly subdivided private estates. In addition, a large number of measuring outlet boxes were installed in both the new and old channels. A number of the existing main channels have been remodelled, enlarged, and improved in location, and several of the older timber bridges have been redecked and otherwise renewed.

SHEPPARTON DISTRICT.

The existing district will be extended to include 19,000 acres. Supply channels have been constructed to command the whole of this area, and it is proposed to allot water rights to and levy the compulsory irrigation charge on the full area during the season 1913-1914.

SWAN HILL.

Existing channels have been remodelled, and several new spur channels constructed. Regulating gates were established at the head of the main centre channel. Surveys have been made and contracts let for the construction of some 6 miles of main channel to supply an adjacent area of 3,000 acres of irrigable land, mostly purchased for subdivision, which it is proposed to add to the district.

DISTRICTS ADMINISTERED FROM KERANG CENTRE.

In the Koondrook Irrigation and Water Supply District over 8 miles of channel were remodelled, and 2 miles of new channel constructed. A concrete subway under Koondrook tramway line was constructed on the Centre Main Channel. Quarters were erected and leased to the Water Bailiff at Myall, and communication by telephone established.

In the Kerang District over 3 miles of channels were constructed in the Gunbower West and Kerang East areas, while the channels in Macorna North, Marquis Hill, South Kerang, and Wandella areas were cleaned out and generally improved.

The new reinforced concrete headworks for Kow Swamp storage were completed and all gearing fixed. The timber lining of the Bannagher flume on the Macorna Channel was almost wholly renewed.

In the Kerang North-west Lakes Area, Cullen's Lake Channel was enlarged to a bed width of 30 feet for a length of over 1 mile. In addition, the channel banks between Third Lake and Lake Charm were in places raised and strengthened.

DISTRICTS ADMINISTERED FROM COHUNA CENTRE.

The old Irrigation and Water Supply District of Cohuna is now subdivided into the three districts of Cohuna, Gannawarra, and Gannawarra West. In Cohuna a number of necessary maintenance works were effected. During the latter part of the year investigations have been undertaken, with a view to providing for a drainage system for the district. It is proposed to make cuttings in Leitch's Creek, and also to make low level channels from certain badly drained portions to Barr Creek. Tenders for the latter works will be shortly invited.

In the Gannawarra and Gannawarra West Districts extensive remodelling and other necessary works were carried out.

DISTRICTS ADMINISTERED FROM LODDON CENTRE.

In Tragowel Plains District some 416 outlet meters have been installed for the measurement of water supplied as water rights under the compulsory irrigation charge system. Remodelling of channels was proceeded with, and will be continued whenever opportunity arises.

The use of Goulburn water for the supply of the Tragowel Plains District has allowed a larger supply of Loddon River water to be given to the Boort District, and the service of that district has consequently been greatly improved.

It is proposed to administer the new Dingee Irrigation and Water Supply District from the Loddon Centre. In this district, which has an area of about 5,000 acres, situate adjacent to the Waranga Western Channel, near Dingee Railway Station, over 17 miles of distributary channels have been constructed. It is proposed to introduce the compulsory irrigation charge during the season 1913-1914.

ROCHESTER DISTRICT.

In the Rochester District, an area of 84,523 acres, which embraces the earlier districts of Bamawm and Nanneella, as well as portion of Campaspe and Deakin Districts, new channels have been constructed to supply the Echuca Estate and other recently subdivided lands.

The Campaspe District has been changed by transfer to the new Rochester District of the portion north of the Waranga Western Channel. As the area supplied from the river has been considerably reduced, the diminished Campaspe District has received a much better supply than heretofore.

DEAKIN DISTRICT.

The area of this district was again reduced by the excision of the portion which was constituted the Tongala District, as well as by the portion added to the new Rochester District. A large area is being reticulated in the portion known as Girgarre, and this will also be later constituted a new district. Other works during the year were confined to ordinary maintenance.

KOYUGA DISTRICT.

The whole of this district is reticulated with channels, and a compulsory irrigation charge was levied during the year. It is proposed to amalgamate it with the Tongala District.

TONGALA DISTRICT.

This district, which was constituted out of portion of the Deakin District, is now fully reticulated. It is proposed to amalgamate it with Koyuga, and bring the combined area under the compulsory irrigation charge system.

BACCHUS MARSH—WERRIBEE SCHEME.

At Bacchus Marsh, supply channels for practically the whole district, embracing an area of about 3,300 acres, have been completed. Water rights have been apportioned, and a compulsory irrigation charge levied over the area. Extensive alterations and repairs have been carried out in a number of the older channels, with a view of securing a more effective service. At Werribee a supply of water has been given to the non-irrigable portions of the Werribee Estate, while water for the irrigation of about 5,400 acres of the irrigable portion will be ready for the season 1913-1914. In connexion with the supply of water for the latter area, it has been decided to provide a new storage on the Werribee River at Melton. The reservoir will have a maximum depth of 85 feet, with a storage capacity of some 10,000 acre feet.

MERBEIN DISTRICT.

During the year a large amount of channel lining has been carried out. It is proposed to continue this work whenever practicable. Several channel extensions were made to provide for new subdivisions.

When the boundaries of the Merbein Irrigation Area were fixed, a part of the land which should have been included was part of the Mildura concession, and had to be omitted. As a result, there is a narrow strip of land separating Mildura and Merbein which is still Mallee scrub. As the pump is located at one end of this strip, it can be irrigated with a comparatively small expenditure for channels, and it is proposed now to add it to the Merbein District. To do this it will be necessary to enlarge the pump by adding another unit equal in capacity to the one now in use. This will not only provide for the extension of irrigation, but will improve the supply for the existing district, and at the same time provide water for domestic and stock purposes to a tract of land around Yatpool which is already settled.

The country west of Merbein will be constituted the Yelta Waterworks District; a main domestic and stock supply channel has already been constructed 21 miles into this area.

NYAH DISTRICT.

A number of channels have been lined, and it is proposed to continue such work from time to time. A main drainage channel was constructed, and surveys were made and designs prepared for some spur drainage channels.

WATERWORKS DISTRICTS.

LONG LAKE DISTRICT.

This district is now well served by channels. The year's operations were confined to the completion of the works for the supply of the high "Cannie Ridge" country, which can now by means of an auxiliary pumping plant be given a domestic and stock supply, and to the extension of branch channels beyond the present western boundaries of the district towards the Lalbert-Waitchie Creek. The country served by these extensions will shortly be included in the Long Lake District.

Altogether contracts were let for about 30 miles of channelling during the year.

TYNTYNDER DISTRICT.

Good progress has been made with the construction of branch channels in this district, contracts for about 40 miles of channels extending westerly beyond the boundaries of the district have been let. The area served by these extensions will later be included in the district. Twin earthen storage tanks at Chillingollah, with a total capacity of 31,000 cubic yards have been completed, and will supply railway requirements as well as those of the town and travelling public.

Extensive trial surveys have demonstrated the feasibility of extending, at a reasonable cost, the Nyah channels northwards across the "Tooleybuc depression" into the parishes of Coonimur, Burra, Wakool, and Wandown. This will permit of early service being given to the locality indicated, and will allow of its immediate settlement.

Surveys of main lines of channels to serve the recently opened country in the parish of Piangil West and towards Cocamba and Eureka have been well advanced.

WIMMERA WATER SUPPLY.

The Main Channel system has been steadily extended. About 21 miles of the main eastern branch has been completed, included in which is some 10 miles designed to carry 100 cubic feet per second to the Richardson River and thence to the Avon River. In connexion with this about 10 miles of the Richardson River has been widened and deepened so that a full supply can now be sent from the Wimmera River either to Donald Weir or to the offtake at the Avon regulator, where a suitable storage (Batyo Catyo) is being established. In addition the system has so been connected that a supply of over 70 cubic feet per second can now be sent also from the Lake Lonsdale storage to the Sea Lake area. Arrangements are being made for carrying out the East Karkaroc Main channel, which will supply the lengthy East Karkaroc distributaries.

The Commission has now practically completed a domestic and stock service to an area of about 6,000 square miles where prosperity is very largely dependent upon a full and reliable supply being provided at a reasonable cost. The service has proved satisfactory, water being carried from Lake Lonsdale to terminals distant almost 200 miles.

In the Wimmera and Sea Lake Districts, a sum of not less than £250,000 has been spent by the Commission during the last six years in providing a water supply. The works have, however, been carried out on a financial basis satisfactory alike to both State and settler.

WESTERN WIMMERA AND WIMMERA UNITED DISTRICTS.

Progress has been made with the remodelling of the old channel systems on both sides of the Yarriambiack Creek. Some 80 miles of old channel were enlarged and regraded, the greater portions of this being in the Wimmera United District. Contracts were let for 17 miles of new branch channels, 12 miles being in the Western Wimmera District, and the remainder in the Wimmera United District.

The works for the reticulated supply of Watchem township has been almost completed. They consist of large earthen storages, concrete stand-pipe, windmill pumping plant, and necessary reticulations.

An elevated concrete stand-pipe, 120,000 gallons capacity, has been erected at Rupanyup, resulting in a greatly improved supply to that town.

BIRCHIP, SEA LAKE, WYCHEPROOF, AND TYRRELL DISTRICTS.

Over 90 miles of channels have been completed during the year in the sedistricts. Reticulated pipe supplies with necessary storages have been or are being provided for the townships of Woomelang, Berriwillock, and Kaneira, while it is proposed to shortly undertake an extensive scheme of improvement in the Sea Lake town supply.

An important work in view is the construction of the Avon Regulator at Batyo Catyo Swamp, in Rich Avon East parish. By means of this regulator much of the surplus flow which now unavoidably runs to waste down the Avon, Richardson, and Wimmera rivers will be impounded in the Swamp, which will be used for a storage, wherefrom water can be distributed as required to the above districts. It is also proposed to construct a large earthen storage of 200,000 gallons capacity at a site adjacent to the terminus of the Sea Lake and Pier-Millan railway now being built.

Arrangements have been made to constitute a new waterworks district, to be known as Tyrrell. It will embrace 710 square miles in the parishes surrounding Lake Tyrrell, extending in a northerly direction to the terminus of the Chillingollah to Manangatang railway, and will absorb that portion of the Sea Lake District, where the conditions of supply will be more analogous to those of the new district than of the old. In view of the difficulty in securing tenders for channel works in the remote locality west and north of Lake Tyrrell, the Commission decided to construct a number of channels with its own teams and labour. So far the result has been satisfactory, and it is proposed to continue the system as long as it proves advantageous.

KARKAROOC DISTRICT.

Contracts were during the year entered into for 62 miles of new channels, and a number of old channels taken over from the Shire of Karkaroor were remodelled. While the area of the present district is now fairly well supplied, it is believed channels should be extended northwards to reach the settled country in the parishes of Nypo, Denying, Dering, Wathe, Tyenna, Gorya, and Boorong. Surveys for some of the channels most urgently required to serve part of this area have already been made.

The schemes for the supply of the townships of Beulah and Hopetoun are now practically completed. In each case the Commission's pumps will be driven by electric power, supplied by the Shire Council.

NORTHERN MALLEE WATER SUPPLY.

The works for the water supply of the Northern Mallee areas have been vigorously pushed forward during the year, the expenditure being £32,500 as against £16,000 for the previous year.

The settled country to the east of Ouyen and between that town and the South Australian border has been constituted into two waterworks districts—the Walpeup East and Walpeup West—with boundaries according with those of the East and West Ridings of the new Shire of Walpeup. The Walpeup West Waterworks District is supplied mainly by bores, while the Walpeup East Waterworks District is at present dependent on excavated tanks filled from rainfall on natural catchments.

In the districts around Carwarp, Yatpool, and in the North Tyrrell area, further storage tanks are being excavated.

TANKS OUYEN, MILDURA CONCESSION (YATPOOL AND CARWARP), AND NORTH TYRRELL DISTRICTS.

During the year eighteen tanks, ranging in capacity from 3,000 to 30,000 cubic yards, have been constructed. Previously, 24 tanks had been excavated, and 47 are now in hand. The total number—89—will have a gross capacity of 490,000 cubic yards

BORING FOR WATER.

In the known water-bearing area sixteen additional bores for the use of settlers have been put down. Contracts for eight more are in progress. All these bores have been successful in striking good supplies of fresh water. In two cases—in the parish of Boinka—true artesian water, *i.e.*, water rising sufficiently to flow over the surface, was struck.

In response to requests made by residents, two bores were put down near Gooroc. Both, however, failed to strike useful supplies. A third bore, put down at Narrewillock, to the north-east of Gooroc, was more successful, a limited supply of stock water of inferior quality, but of use in times of drought, being struck. The bore was left in such a condition as to be accessible when needed.

A series of bores, to delimit the fresh water-bearing area, are being put down in the country north-west of Murrayville. Two have already proved successful. Five bores for the service of settlers in the recently subdivided parishes of Goongee, Walpa, Pallarang, and Koonda are also being sunk.

Exploratory work is being carried out along the Eastern boundary of the fresh water-bearing area in the Nyang District. A bore sunk at Harrison's Basin, between Underbool and Nyang, has proved successful, while a bore further to the south-east, on the northern boundary of the parish of Daalko, is now in progress.

Exploratory boring at North Tyrrell and in the Mildura Concession has now been discontinued. At North Tyrrell, the bore was stopped in March last at a depth of 869 feet. In the Mildura Concession, the bore at Yatpool was bottomed at a depth of 1,402 feet. No fresh water was struck in either case. A bore was put down at Kooralong, about 12 miles west, but, as the strata was identical with those passed through at Yatpool, operations were discontinued at 579 feet.

ROAD CLEARING.

Over 700 miles of roads were cleared and grubbed. Practically all the roads in the older subdivided areas are now cleared.

GOULBURN HEADWORKS AND MAIN CHANNELS.

These works comprise the Goulburn Weir, the Goulburn-Waranga Channel, extending from the Weir to Waranga Reservoir, a distance of 23 miles, the Waranga Reservoir—all of which are free headworks—the main channel extending westerly from the Waranga Reservoir to the Serpentine Creek, a distance of 92 miles, and the main eastern channel, which extends from the Goulburn Weir to the Shepparton District, a distance of $31\frac{1}{2}$ miles. The total length of main channels is $146\frac{1}{2}$ miles, the total storage being 218,000 acre feet. The irrigation districts supplied are the Shepparton, Rodney, Deakin, Tongala, Koyuga, Rochester, Dingee, and Tragowel Plains.

On the Waranga embankment a wall of dry stonework, $3\frac{1}{4}$ miles long, was built to prevent damage by spray during abnormal storms. On the western main channel reinforced concrete flood crossings were provided at the Calivil and Nine-mile Creeks, and on the eastern main channel a new subway was provided near the Seven Creeks. At the close of the last irrigation season a slip occurred on the Goulburn-Waranga Channel near the Weir; this had always been considered a weak point in the waterway. Its repair makes the channel more secure than heretofore.

DRAINAGE SCHEMES.

The Commission has been directed by the Government to prepare plans and estimate for completing the drainage of the Koo-wee-rup area preparatory to the constitution of a drainage district.

After consideration of the data available, and of the diverse views expressed as to the adequacy of existing works and as to the character of additional works required, it was deemed advisable to have surveys made to obtain levels of the entire area embraced in the scheme, as the unequal subsidence of the swamp due to the operation of existing works had made former levels unreliable. These surveys are now in progress, and so soon as possible after their completion a revised scheme will be submitted to the Government.

A survey has been made of the Carag Carag area in the Deakin District. Inspections have also been made of the Moe and Drouin East Swamp areas.

In the Cohuna District the increase in the area irrigated through the purchase and closer settlement of a part of the district has required the construction of a number

of new distributary channels, and this, with excessive use of water by irrigators, has caused a rise in the soil water-level, which in a few scattered areas has come so near the surface as to cause an accumulation of alkali through evaporation.

The situation is being dealt with by methods which have been tried and proved effective elsewhere. Sparing and careful use of water in irrigation is encouraged. The channels are being emptied when not in use, and two main outlet drains are being dug to enable the soil water-level to be kept far enough below the surface to check injury through evaporation. These drains will serve to empty Leitch's Creek, and will themselves lower the water-level of a considerable area, but their main purpose will be to provide an outlet for private drains constructed by land-owners.

RIVER GAUGING.

As provided by section 38 of the *Water Act* 1905, the work of gauging and recording the flow of the rivers and streams in this State has been continued. The supply stored in reservoirs and the volumes used therefrom have also been recorded and published weekly. The total number of gauging stations in the State is now fifty-one. During the year the field observation and office work connected with these gaugings have been advanced. A good deal of work has also been done towards ascertaining the losses in the channels serving irrigation districts, and in the preparation of discharge tables for use in such districts. The results of river gaugings subsequent to last publication are being published, and will shortly be made available.

DIVERSION OF WATER.

In the exercise of the right of the State to the use and flow and control of water in rivers, creeks, streams or water-courses, lakes, lagoons, swamps or marshes, sanction to divert has been given in a large number of cases.

The number of authorized diversions in force is now—

Yearly permits	..	..	..	..	696
Flood permits (Murray River)			..	..	9
Licences	..	..	..	..	14
					<hr/>
					719
					<hr/>

TORRUMBARRY WEIR.

The construction of this weir has awaited the results of the investigations of the plans and proposals of this State by the engineers of New South Wales and South Australia. These have been approved by New South Wales, but are still being considered by South Australia.

SETTLEMENT ALONG THE MURRAY FRONTAGE.

From Narrung, on the Murray westward to the Mildura railway line, and from Bumbang, on the Murray south, almost to Manangatang, is an area of Crown lands, which is now unoccupied, but which is capable of settlement if supplied with water for domestic and stock purposes. The water for this will have to be pumped from the Murray, at some point yet to be selected, as a limit has been reached to the extension of existing channels from the south. The country to be served has, however, an irregular and broken surface, rendering the location of channels difficult, and it will be necessary to have a topographical survey, to show location and direction of slopes before channels can be located or built, and before the most feasible pumping site can be determined. Arrangements have been made for the making of this survey

by the Surveyor-General. Owing to the extent of the country to be covered, the fact that it is timbered and the water supply scanty, it will be several months before the necessary data on which to base estimates and plans can be obtained.

THE MURRAY RIVER INQUIRY.

The Inter-State Conference of Engineers, on which Mr. J. S. Dethridge, a member of this Commission, acted as representative for Victoria, has completed its investigation and presented its report. The report contains much fresh data on such matters as the gaugings of the main stream and tributaries, and the proportion of contribution by each State. It also outlines the further storage and other works necessary to enable irrigation development to approach within measurable distance of the limits imposed by the total supply of water available. The various questions involved are likely to be the subject of further conference between the Premiers of the interested States at an early date.

GOULBURN RIVER FLOOD PROTECTION.

The Commission has been entrusted by the Government with the design and construction of a scheme to complete the works commenced by the Department of Public Works for the protection of lands subject to flooding from the Goulburn River between Shepparton and the Murray. Works to strengthen and make good defective portions of existing levees have been carried out. The flood discharge has been improved by cutting across bends and removing obstructive timber. All of this is part of a comprehensive scheme proposed by the Commission.

In accordance with the *Flood Protection Act 1911*, a flood protection district will be proclaimed, embracing approximately 110,000 acres. This will have debited to it the proportion of the capital cost of works to the limit of 12s. per acre prescribed by the Act.

It is estimated that to liquidate this liability for capital, together with interest at the rate of 4 per cent. per annum, an annual payment of 8d. per acre per annum for a period of thirty-one years will be necessary. In addition there will be the charge for maintenance and the payment of compensation for damages by breakages in embankments of One penny per acre per annum.

WORKS CONTROLLED BY OTHER AUTHORITIES.

During the year a number of works was carried out by Waterworks Trusts and other Authorities on the recommendation of the Commission.

Three new Waterworks Trusts were constituted to undertake and control supplies for the townships of Maffra, Morwell, and Warburton. The works at Glenrowan and Trentham were completed. Pipe extensions and other additions were made by the local authorities at Alexandra, Avoca Township, Charlton, Colac, Dandenong, Elmore, Euroa, Horsham Borough, Kerang, Kilmore, Kyneeton, Lillydale, Longwood, Maryborough, Mildura, Mooroopna, Rochester, Shepparton, Numurkah, Tungamah, and Tatura. Proposals for improvement of the services at Ararat, Ballarat, Bright, Echuca, Mildura, Seymour, Swan Hill, and Wedderburn, together with new schemes for the supply of Tongala, Winchelsea, and Yackandandah are being investigated.

GENERAL.

PROGRESS OF IRRIGATION.

The most satisfactory feature of the year's changes has been the increase in the area planted to lucerne and orchards. In the irrigated closer settlements alone 2,000 acres were planted to orchards and vines, and 7,000 acres added to the area seeded to lucerne. The growing importance of this crop was shown by the consignments to Melbourne and other markets, which are now large and regular enough to justify quotations of prices. In all, the irrigated area was increased 20,000 acres.

Satisfactory progress was also made in the number of acres of land graded by settlers, in the better methods of cultivation and watering, and in the area planted to annual fodder crops. The latter has transformed the agriculture of some of the closer settlements, and has resulted in the better feeding of dairy herds and a large increase in the number of sheep and pigs grown and fattened on small farms.

Two factors are operating to extend irrigation—closer settlement and the allotment of water rights. The extent of their influence is shown by comparing the irrigated area in 1909-10, the year these two factors first went into operation, with 1912-13, as set out herein:—

Name of District.	Acres Irrigated, 1909-10.	Acres Irrigated 1912-13.	Increase in Acres.
Shepparton	None	4,346	4,346
Rodney	32,356	38,611	6,255
Tongala	2,270	4,955	2,685
Rochester	500	7,769	7,269
Dingee	None	92	92
Bacchus Marsh	31	1,858	1,827
Cohuna	19,825	26,884	7,059
Tragowel Plains	20,000	38,103	18,103
Koondrook	5,029	14,405	9,376
Merbein	202	4,993	4,791
Nyah	569	1,569	1,000
Swan Hill	5,410	7,647	2,237
Totals	86,192	151,232	65,040

EXTENSIONS OF THE IRRIGABLE AREA.

Construction work during the year has been mainly directed towards bringing the surplus water of existing works into use. No costly new schemes have been begun, but many miles of distributary channels from existing works have been completed, and several hundred new outlets installed. The result will be a large increase next year in the irrigable acreage and in the allotments of water for irrigation.

In the Shepparton District, channels to supply 6,000 acres in what is known as No. 2 Closer Settlement Area have been completed, and works to supply 9,000 acres of privately-owned land in this district are nearing completion. As a result, the area to which water has been allotted has been more than quadrupled, and will be still further increased next year without the construction of any additional works. The Tongala Closer Settlement Area has been extended by the subdivision and irrigation of over 1,000 acres on the Kyabram Estate.

The most important extension in the north has resulted, however, from the building of a 20-mile canal, starting from the Waranga Main Channel, and reaching to within 2 miles of Echuca. This canal will water 3,000 acres of State land and a larger area of privately-owned land, exceptionally well suited to intense culture. The construction of this canal will make the irrigated area continuous from Echuca to the Main Western Channel, and will bring into cultivation a large extent of virgin fertile soil hitherto used almost entirely for grazing.

The Dingee Irrigation District has been created where the Main Western Channel crosses the Bendigo-Kerang railway line. Channels have been built to supply about 5,000 acres, and of this about 500 acres close to the township of Dingee have been bought and subdivided into small holdings by the State, and will soon be thrown open to settlement.

About 3,000 acres have been purchased and subdivided into small holdings in the Koondrook District, and channels built to reach these blocks. Nearly 6,000 acres in the Rodney District have been privately subdivided into small allotments. In order to supply these new allotments with water, it has been necessary to build a considerable mileage of distributary channels and construct a large number of new outlets for measuring water. This outlay is, however, warranted by the prospective increase in water sales and in value of crops grown. In order to enable irrigators in the Tragowel Plains District to utilize the increased water supply from the Goulburn, the distributary channels are being reconstructed and repaired, and meters installed for the measuring of water. Hitherto the quantity of water used has been estimated. While there was some opposition to meters when first proposed, irrigators are now unanimous in commenting on the accuracy and fairness which result from selling water by measure.

IRRIGATION IN SOUTHERN VICTORIA.—THE WERRIBEE SCHEME.

Since the completion of the Pykes Creek reservoir, the boundaries of the Bacchus Marsh District have been extended, until they now include five times the original area. Fruit-growing and market gardening are becoming prominent features in this district.

The main purpose of the Werribee scheme has from the outset been the development of some 7,000 acres of irrigable land near the Werribee railway station, 17 miles from Melbourne. Five thousand acres have been subdivided, the channels to irrigate it built, and water supplied to the allotments already settled. Owing, however, to the increased use of water at Bacchus Marsh, it is found the Pykes Creek reservoir will not serve both areas, and a reservoir to hold 10,000 acre feet of water is to be built at Melton to insure the complete watering of the lands at Werribee.

CLOSER SETTLEMENT IN IRRIGATED AREAS.

In January, 1913, the subdivision and settlement of land in the irrigated areas was transferred from the Lands Purchase and Management Board to the Commission. While this has added materially to the Commission's responsibilities and duties, it has made the procedure in dealing with settlers in the irrigated areas simpler and more direct.

The Commission has placed in each of the closer settled districts an Inspector with practical knowledge of irrigation, who advises new settlers, and who also reports to the Commission the progress these settlers are making on their blocks. Several successful irrigators and experts in agriculture have also, at the request of the Commission, visited the districts and addressed settlers' meetings. Mr. Jacob, of Mildura, Mr. McDonald, of Cohuna, and Mr. Refshauge, principal of the Ballarat Agricultural High School, have furnished reports on their observations in the different districts of the Goulburn scheme, and given valuable advice to settlers. These have been published and sent to each settler. The Commission has purchased implements for the cultivation of lucerne and for grading land, and supplied them to settlers at a nominal rental. Agricultural lime has also been purchased in large quantities and sold to settlers at cost price.

The subjoined table shows the progress of closer settlement in irrigated areas since its commencement in 1909 :—

Settlement.	Lands Purchased and Subdivided by the State.			No. of Families thereon when Purchased.	Subdivided into—		No. of Closer Settlement Blocks now Occupied.	Present Increase in No. of Families.
	Total Area.	No. of Properties.	Average Area.		No. of Closer Settlement Blocks.	Average Area.		
Shepparton No. 1 ..	3,200	7	460	6	104	29	102	96
Shepparton No. 2 ..	6,000	14	429	13	144	38	111	98
Kyabram	1,000	1	..	3	35	27	16	13
Tongala	15,200	31	490	30	240	61	182	152
Bamawm	13,400	28	480	21	178	71	146	125
Nanneella	8,600	16	535	6	106	78	81	75
Cornelia Creek (including Koyuga)..	6,700	1	..	..	75	86	64	64
Cohuna	11,500	27	426	8	131	84	101	93
Swan Hill	5,400	18	300	10	84	63	60	50
Werribee	6,200	1	..	6	152	40	40	34
Nyah .. ..	..	1	..	..	100	29	71	71
Merbein	(Crown Lands)	..	..	..	186	32	182	182
..	..	145	..	103	1,535	..	1,156	1,053

From the above it will be seen that there are now eleven times as many families in these settlements as there were on the same areas four years ago. The increase in population has not, however, been as significant as the improvements in cultivation. The fact that practically all the land owners are beginners in irrigation, and are wedded to the crops and methods of cultivation suited to rainfall has, in the past, been the greatest obstacle to irrigation development. It has taken much effort to bring about changes to the crops and methods of farming needed to secure the largest benefits from irrigation; but it is the testimony of the Commission's officers, and of all other observers, that the progress made this year is so marked, and the results so generally encouraging, that it will not be many years before irrigation and intense culture are synonymous terms in closer settled areas. As illustrating this over 1,000 acres were planted with orchards, and over 2,000 acres seeded to lucerne in the Shepparton District, while at Bamawm there are now 700 acres of orchard and 6,000 acres of lucerne, where three years ago there was not an acre of either.

LANDS AVAILABLE IN IRRIGATED AREAS.

The statement following shows the lands in the irrigated areas transferred to the Commission and those purchased by the Commission:—

	Transferred to the Commission by the L.P. and M. Board.		Purchase Incomplete at time of Transfer.	Purchased by Commission.
	Subdivided Areas.	Unsubdivided Areas.		
	Acres.	Acres.	Acres.	Acres.
Bamawm	13,400	2,270	960	..
Nannella	8,600	..	..	..
Cornelia Creek	2,500	..	..	..
Koyuga	4,200	..	..	..
Tongala	15,200	..	..	..
Kyabram .. .. .	..	..	1,150	1,900
Cohuna	11,500	..	..	..
Swan Hill	5,400	..	..	1,470
Shepparton No. 1	3,200	..	..	..
Shepparton No. 2	5,900	160	..	..
Werribee	300	7,890	..	..
Koondrook .. .. .	..	390	..	3,030
Dingee .. .. .	..	..	..	470
Stanhope .. .. .	..	..	6,630	14,340
	70,200	10,710	8,740	21,210

Out of the areas shown above, 17,000 acres are now subdivided and available for settlement, and 30,000 acres are being channelled and made ready. The lands subdivided for settlement include 100 allotments, with an area of less than 20 acres each, and 240 allotments, with an area of 20 acres or over.

INCREASED COST OF SUPPLYING WATER.

During the past five years the cost of labour and material required for the construction and operation of irrigation works has increased about 20 per cent. Nearly all water allotted is now sold by measure, several thousand meters having been installed for that purpose. Five years ago the average size of holdings was large, the average being not less than 400 acres; now water has to be delivered to more than 1,000 holdings, averaging less than 50 acres each. The irrigation season has been lengthened, and the delivery of water made more prompt, regular, and accurate. All these things have added to the cost of operation, and have made it impossible to supply water at prices fixed five years ago. As a result the charges for water will have to be revised at an early date.

IRRIGATION SCHOLARSHIPS.

In every irrigation district it is the work of the farmer which ultimately fixed the value of water and the success of the scheme. Anything which will help the farmer

to secure larger yields or grow more valuable crops adds to the value of the State's expenditure on channels.

The officer in charge of an irrigation district should therefore have a knowledge of both engineering and agriculture. No one can meet all the requirements of the position without a practical familiarity with both subjects, and as the area devoted to intense culture expands, the greater will be the opportunity for putting a knowledge of the principles of scientific agriculture into practice.

These facts led the Government to offer in 1912, and in 1913, two scholarships of £100 per annum each to enable students to study irrigation engineering in America, the scholarships to continue from two to four years. The four students appointed to these scholarships were selected by a committee, composed of the Director of Education, the Surveyor-General, and the Members of this Commission. They are taking the course in irrigation engineering, which includes scientific agriculture, in the University of California, where they will also have an opportunity to become familiar with irrigation practice in a country very like Victoria in climate and products. The holders of these scholarships on completing their course are, if required, to enter the service of the Commission at a fixed salary for a term of years.

ADDITIONAL STORAGE FOR THE GOULBURN SCHEME.

The surveys of the Sugar-loaf Reservoir Site, and the excavation to determine the depth and character of bed rock at the dam site, are practically completed. The excavation shows bed rock at reasonable depth, and the Commission has the information needed to prepare plans and specifications whenever directed by the Government.

Consideration has therefore been given to the expediency or necessity of immediate construction; but for reasons set forth, in a report submitted during the year, the Commission believes this should be deferred until there is a demand for the water, at the price which will have to be charged to make the scheme self-supporting, or until conditions justify larger purchases of land for the extension of closer settlement. Such purchases are not warranted at present, as the unsold State land irrigated from the Goulburn works will provide allotments for at least 800 additional settlers.

The reservoir is not needed to meet existing irrigation requirements. Last year Waranga Basin held at the end of the irrigation season 140,000 acre feet of water, or nearly three-fourths its total capacity, and there must be a considerable increase in the irrigated acreage before the water supply now available will all be utilized.

In order to obtain a satisfactory financial return for the cost of the reservoir and the necessary distributary works, a compulsory charge would have to be levied on at least 150,000 acres, in addition to that now subject to such a charge. This would be regarded by the owners of the land as an injury rather than a benefit, and there would be no co-operation on their part in the development of irrigation.

When the surplus water of existing works is brought into use, the field for future development will be considerably broadened, as there are a number of tracts of fertile soil admirably suited to intense culture under irrigation, which are now without a water supply. Before finally entering on the construction of the Sugar-loaf Reservoir, consideration should be given to the relative merits of these different areas, and of other important schemes for conserving and utilizing water under irrigation. These will include the Cumberona Reservoir on the Upper Murray, which would safeguard existing districts along that river, and enable a large and fertile tract of land between Yarrawonga and Numurkah to be irrigated; the Eppalock storage on the Campaspe, which would provide water to irrigate nearly 1,000 farms along the railway between Rochester and Elmore; and the construction of irrigation works in Gippsland.

IRRIGATION IN GIPPSLAND.

At the request of the Department of Agriculture, surveys were made and plans prepared for the temporary irrigation of the beet lands in the Closer Settlement area at Boisdale. The irrigation operations will be carried out by the Agricultural Department. Surveys are also being made to enable plans and estimates to be prepared for permanent irrigation works to serve about 6,000 acres at Kilmany Park, near Sale.

ADMINISTRATION.

CONTROL OF CLOSER SETTLEMENT IN IRRIGATION DISTRICTS.

Under the provisions of the *Closer Settlement Act 1912*, No. 2438, the control and administration of closer settlement in Irrigation Districts were transferred to the Commission. This transfer has necessitated a re-arrangement of the Commission's staff. In addition to a number of minor changes, Mr. G. Laing, Mr. G. C. Kreutzer, and Mr. L. B. Scharp have been assigned important duties in connexion with this work.

AMALGAMATION AND SUBDIVISION OF DISTRICTS.

The Bamawm and Nanneella Districts and portions of Campaspe and Deakin Districts were united so as to form the Rochester Irrigation and Water Supply District. The Deakin District was subdivided into the two districts of Deakin and Tongala, and the Gannawarra District into the Gannawarra and Gannawarra West Irrigation and Water Supply Districts.

NEW DISTRICTS CONSTITUTED.

The Dingee Irrigation and Water Supply District, with an area of 5,000 acres, has been constituted. Its supply will be obtained from the Waranga Western channel. The Kerang North-west Lakes Waterworks District has been constituted. It includes about 60,000 acres, supplied by the lakes north-west of Kerang. The two waterworks districts of Walpeup East and Walpeup West have been constituted. These districts embrace 2,500,000 acres, in the North-West Mallee, their supply being provided by tanks and bores. The Shepparton District, which originally had an area of only 3,700 acres, has been extended to an area of some 19,000 acres, by the inclusion of the Shepparton No. 2 Closer Settlement Estate, and a large area of other lands.

It is proposed to constitute an area of about 450,000 acres in the vicinity of Lake Tyrrell, and including about 130,000 acres of the northern portion of Sea Lake District, as a waterworks district under the name of Tyrrell. A waterworks district will also be constituted under the name of Yelta, which will embrace about 31,000 acres adjoining the Merbein Irrigation area on the west. The supply, which will be for domestic and stock purposes only, will be furnished by the Merbein pumping plant.

PROCLAMATION OF URBAN DISTRICTS AND DIVISIONS.

The townships of Beulah, Hopetoun, Jeparit, Koondrook, Woomelang, and Corop have been provided with pipe supplies; each has been proclaimed an Urban District or Division, and urban rates were levied during the year. It is intended to similarly reticulate a number of townships, including Berriwillock, Cohuna, Jung Jung, Nyah, Quambatook, Ultima, Watchem, and Werribee, and these will be proclaimed and rated as Urban Districts or Divisions.

NEW APPOINTMENTS AND TRANSFERS.

Mr. W. F. Nevill has been appointed Resident Engineer for Shepparton District, and Mr. C. E. Bladin as District Secretary and Collector for Wonthaggi District. Mr. H. F. Bahmeier was appointed Resident Engineer, Secretary, and Collector for Cohuna Centre in place of Mr. G. C. Kreutzer, transferred to Head Office.

With a view to concentration and economy in administration, the collection of moneys in connexion with Deakin District, which was previously controlled from Rushworth, is now transferred to Mr. J. A. Carey, District Secretary, Tatura. This necessitated the retirement of Messrs. W. H. Geyle and the late A. T. Roberts, of Rushworth, two valuable officers previously employed by the old Trust.

Mr. A. S. Kenyon, Engineer in Charge of Water Supply in the Northern Mallee, has been appointed to draw up schemes for works of drainage at Koo-wee-rup, Moe, and other similar areas. Mr. O. J. Collis has been appointed Engineer in charge of operations in connexion with the flood protection works along the Goulburn River.

OFFICES IN COUNTRY CENTRES.

Offices for the conduct of the Commission's business have been erected at Cohuna, and arrangements are in progress for the early erection of office buildings at Rochester. At Pyramid Hill, a residence is being built, and will be leased to the officer in charge of the district.

FIRE INSURANCE.

As previously stated, the Commission has since July, 1909, been carrying the fire risks on its own buildings. The premiums thus saved now amount to £710. No losses have occurred since the date named.

RECEIPTS, DISBURSEMENTS, AND ESTIMATES.

The total revenue of the Commission for the year was £176,140, an increase of £23,320 on the amount for 1911-1912. Almost the whole of this increase came from the Irrigation and Water Supply Districts, particularly those in which the compulsory irrigation charge was levied.

The Coliban District showed only the small increase of £18 in revenue, as compared with last year's return, while the net expenditure increased £274. Although the net return to the State on capital cost is now 2·23 per cent., as against 1·9 per cent. in the year 1905-6, when the Commission took control, the annual deficit is still very large, being last year £21,238. The Commission is precluded by the Water Acts from increasing the rate revenue in this district; consequently any improvement in the financial position must be slow.

The revenue from the Irrigation and Water Supply Districts is £20,658 more than for last year. This is the largest annual increase yet shown. The aggregate revenue deficit of all the Irrigation and Water Supply Districts is now £70,429, but this includes a new amount, not previously charged to the districts, of £4,500 for the interest on and maintenance of portions of the Goulburn Main Channel Scheme, and Pyke's Creek Reservoir. While the deficit was increased by £12,446 last year, the loss is much less than for the previous year, when, inclusive of the new charging referred to, the loss was £23,564. The result is bearing out the Commission's statement that, with the general introduction of the compulsory irrigation charge, the financial position of these districts will steadily improve.

In the twenty-five Waterworks Districts under the control of the Commission, other than Coliban, the revenue returns still continue to be satisfactory, and the revenue deficit, which in 1908-9 was £19,274, has been reduced to £9,654, notwithstanding that since then a sum of £16,294 has been reserved for Depreciation and Redemption purposes.

The net expenditure for the year from annual votes was £103,332, and, notwithstanding the establishment of a number of new districts, the increase was only £8,810 over that of the previous year. The total expenditure of £103,332 is exclusive of £3,366 charged to capital, and is also this year exclusive of a sum of £2,140, which represents one-fourth of the expenditure remitted in the Merbein and Nyah Irrigation Areas, under the provisions of the *Murray Settlement Act* 1907. Next year it is proposed to charge these areas with the full amount of expenditure. The expenditure of loan moneys amounted to £230,687; the districts in which the loan works were constructed are set out in detail in the Report.

The estimates for 1913-14 show an increase of £17,000 in receipts over the previous year's estimates, while the estimated disbursements show an increase of only £5,050. The sum estimated to be available towards meeting the interest to be paid by the State on its loan expenditure for works of water supply is, after meeting an estimated expenditure of £18,775 on Non-revenue Producing Works, £64,500, to which should be added £56,000, estimated to be received by this State from other Authorities, making a total of £120,500. The present total interest charges on loans amount to £259,622; of this amount £91,816 is debitable against Free Head-works, Amounts Written Off, and Unexpended Balances, while £167,806 is debitable against the Commission and other Authorities.

The loan liability of the State for works of water supply at the close of the year was £7,728,702. Of this total, £1,235,134 is for Free Head-works; £1,268,972 has been written off; £147,046 was advanced to some early-formed local Authorities; £6,417 has not been expended; and £213,673 has been paid off by Authorities. The balance, £4,857,460, is the sum in respect of which those benefited by the various works are liable for payment of interest.

RECEIPTS AND DISBURSEMENTS.

STATEMENT of Moneys received and disbursed during the year ended 30th June, 1913.

Works.	REVENUE.	EXPENDITURE, exclusive of Interest, Redemption, and Depreciation Charges.			EXCESS.	
		From Annual Votes and Special Appropriation.	Deduct Capital and Other Expenditure not Chargeable to Districts.	Net Expenditure on Maintenance and Management.	Revenue over Net Expenditure.	Expenditure over Revenue.
	£	£	£	£	£	£
Coliban	38,369	12,189	816	11,373	26,996	
Other State Works—						
Broken River	7	202	..	202	..	195
Goulburn	93	3,839	..	3,839	..	3,746
Kow Swamp	318	2,052	..	2,052	..	1,734
Lake Lonsdale	7	382	..	382	..	375
Loddon River	7	262	..	262	..	255
Lower Wimmera .. .. .	..	94	..	94	..	94
North-West Lakes	259	400	..	400	..	141
Irrigation Districts	78,844	45,130	2,140	12,990	35,854	
Waterworks Districts—						
Rural	41,904	21,853	410	21,443	20,461	
Urban	11,018	3,338	..	3,338	7,680	
Licences, Diversions, Miscellaneous	5,314	2,009	..	2,009	3,305	
	176,140	91,750	3,366	88,384	94,296	6,540
Not Revenue Producing —						
River Gaugings, Surveys and Reports, New Projects .. .. .	..	4,467	..	1,467	..	1,467
Grant Charlton Waterworks Trust, Conference Murray Waters, Scholarships .. .. .	..	3,097	..	3,097	..	3,097
Waterworks Trusts .. .. .	..	1,643	..	1,613	..	1,643
Boring for Water and Road Clearing, Cost of Mallee, and Land Settlement .. .. .	..	3,008	..	3,008	..	3,008
Loan Works .. .. .	..	2,733	..	2,733	..	2,733
Totals	176,140	106,698	3,366	103,332	94,296	21,488

COLIBAN SYSTEM.

STATEMENT of Moneys received and disbursed during the year ended 30th June, 1913, and of interest charged at the rate of 4 per cent. on Capital Debts.

Districts.	Capital Debit at 30th June, 1913.	Revenue.	Disbursements and Interest Charged.			Excess.	
			Disbursements.	Interest.	Total.	Revenue over Disbursements and Interest.	Disbursements and Interest over Revenue.
	£	£	£	£	£	£	£
Coliban	1,190,505	37,193	10,801	47,620	58,421	..	21,228
Axe Creek	1,750	200	131	70	201	..	1
Harcourt	13,600	976	441	544	985	..	9
Totals	1,205,855	38,369	11,373	48,234	59,607	..	21,238

IRRIGATION AND WATER SUPPLY DISTRICTS.

STATEMENT of Moneys received and disbursed from 1st May, 1906, to 30th June, 1913; and of Interest, charged at the rate of 4 per cent. on Capital Debits; and also of Depreciation and Redemption charged, as at 30th June, 1913. (Free Head-works excluded.)

RECEIPTS.

District.	1st May, 1906, to 30th June, 1912.	1912-13.					Grand Total at 30th June, 1913.
		Rates.	Compulsory Irrigation Charge.	Water Sales.	Interest, Miscellaneous.	Total	
	£	£	£	£	£	£	£
1. Bacchus Marsh	3,759	511	2,951	250	12	3,760	7,519
2. Boort	11,220	1,196	..	938	7	2,411	13,661
3. Campaspe	3,371	630	..	96	..	726	4,097
4. Cohuna	26,190	1,606	5,236	1,053	96	7,991	34,481
5. Deakin	14,079	2,353	..	1,312	2	3,667	17,746
6. Dry Lake	202	..	..	..	29	29	231
7. Gannawarra	11,751	750	2,537	792	26	4,105	15,856
8. Gannawarra West	5,502	488	..	825	1	1,317	6,819
9. Kerang	23,258	2,150	..	2,686	4	1,240	27,498
10. Koondrook	16,036	1,073	3,202	451	53	4,779	20,815
11. Merbein	4,363	138	4,073	8	180	4,399	8,762
12. Nyah	2,090	55	1,556	17	64	1,692	3,782
13. Rochester	3,279	936	2,523	641	100	4,200	7,479
14. Rodney	74,152	6,684	11,012	2,185	122	20,033	94,185
15. Shepparton	1,207	151	1,004	224	42	1,421	2,628
16. Swan Hill	14,362	512	2,200	639	63	3,414	17,776
17. Tongala and Koyuga	2,633	491	443	351	5	1,290	3,923
18. Tragowel Plains	23,399	1,593	6,095	1,591	61	9,340	32,739
	241,153	21,650	42,865	13,459	870	78,844	319,997

DISBURSEMENTS, AND INTEREST DEPRECIATION AND REDEMPTION CHARGED.

District.	1st May, 1906, to 30th June, 1912.	DISBURSEMENTS.					INTEREST CHARGED.					Grand Total at 30th June, 1913.
		1912-13.					Total at 30th June, 1913.	1st May, 1906, to 30th June, 1912.	1st July, 1912, to 30th June, 1913.	Total at 30th June, 1913.	(A) DEPRECIATION. (B) REDEMPTION.	
		Repairs and Maintenance.	Distribution of Water.	Management.	Total.	Total.						
	£	£	£	£	£	£	£	£	£	£	£	£
1. Bacchus Marsh	1,636	119	282	111	512	2,148	2,990	2,658	5,648	..	..	7,796
2. Boort	7,143	534	536	135	1,205	8,348	1,687	700	5,387	..	..	13,735
3. Campaspe	2,247	97	153	93	343	2,590	2,413	355	2,768	..	..	5,358
4. Cohuna	21,563	1,263	3,189	347	4,799	26,362	11,440	2,454	13,894	(A) 3,274	..	43,530
5. Deakin	6,845	1,110	823	350	2,283	9,128	10,254	3,095	13,349	..	..	22,477
6. Dry Lake	1	..	..	..	..	1	203	29	232	..	..	233
7. Gannawarra	9,335	558	1,151	139	1,848	11,183	5,374	1,079	6,453	(A) 1,034	..	18,670
8. Gannawarra West	4,371	159	572	59	790	5,161	2,515	527	3,042	(A) 492	..	8,695
9. Kerang	12,907	1,803	702	376	2,881	15,788	10,422	1,546	11,968	(B) 500	..	28,256
10. Koondrook	12,210	656	1,632	358	2,646	11,856	8,721	2,653	11,374	(A) 1,501	..	27,731
11. Merbein	4,969	42	4,542	415	4,999	9,968	2,706	1,345	4,051	(A) 1,750	..	15,769
12. Nyah	2,666	124	1,170	116	1,110	4,076	1,528	636	2,164	(A) 922	..	7,162
13. Rochester	3,396	1,212	1,291	377	2,880	6,276	6,471	5,667	12,138	..	..	18,414
14. Rodney	37,746	3,920	3,785	1,018	8,723	16,469	42,832	12,182	55,014	..	..	101,483
15. Shepparton	1,280	689	329	163	1,181	2,461	1,958	1,024	2,982	..	..	5,443
16. Swan Hill	14,167	418	1,655	257	2,330	16,497	3,587	1,157	4,744	(A) 1,568	..	22,809
17. Tongala & Koyuga	1,801	625	309	179	1,113	2,914	2,938	2,652	5,590	..	..	8,504
18. Tragowel Plains	16,068	1,378	1,455	214	3,047	19,115	9,475	5,771	15,246	..	..	34,361
	160,351	14,707	23,576	4,707	42,990	203,341	130,514	45,530	176,044	11,041	..	390,426

WATERWORKS DISTRICTS.

STATEMENT of Moneys received and disbursed from 1st July, 1906, to 30th June, 1913; and of Interest charged, at the rate of 4 per cent. on Capital Debits; and also of Depreciation and Redemption charged, as at 30th June, 1913. (Free Head-works excluded.)

RECEIPTS.

District.	1st May, 1906, to 30th June, 1912.	1912-13.				Grand Total at 30th June, 1913.	
		Rate.	Water Sales.	Interest and Miscellaneous.	Total.		
<i>Rural.</i>							
1. Birchip	£	£	£	£	£	£	
2. Sea Lake	} 34,516	} 2,173	..	29	2,202	} 45,133	
3. Wycheproof			5,214	..	83		5,297
4. Karkaroc			3,080	..	38		3,118
5. Long Lake	9,057	5,071	..	101	5,172	14,229	
6. Tyntynder	20,948	4,648	62	58	4,768	25,716	
7. Western Wimmera	2,050	1,196	..	18	1,214	3,264	
8. Wimmera United	38,225	8,066	822	93	8,981	47,206	
	45,444	10,880	138	134	11,152	56,596	
<i>Urban.</i>							
9. Bacchus Marsh	4,024	475	365	2	842	4,866	
10. Beulah .. .. .	..	241	..	2	243	243
11. Birchip	2,086	626	232	15	873	2,959	
12. Corop .. .. .	..	28	..	..	28	28
13. Dimboola	5,473	421	819	44	1,284	6,787	
14. Hopetoun .. .. .	..	373	40	1	414	414
15. Jeparit .. .. .	..	352	65	..	417	417
16. Koondrook .. .. .	..	209	..	..	209	209
17. Lake Boga	467	161	..	2	163	630	
18. Minyip	1,374	386	2	3	391	1,765	
19. Natimuk	1,740	200	244	7	451	2,191	
20. Rainbow	1,408	688	109	12	809	2,217	
21. Rupanyup	1,212	299	107	2	408	1,620	
22. Sea Lake	1,021	351	35	11	397	1,418	
23. Wonthaggi	3,813	1,595	1,343	Grant 500 } 43 }	3,481	7,294	
24. Woomelang .. .. .	..	129	30	2	161	161
25. Wycheproof	1,415	408	30	9	447	1,862	
	174,273	47,270	4,443	1,209	52,922	227,195	

DISBURSEMENTS, AND INTEREST DEPRECIATION AND REDEMPTION CHARGED.

District.	1st May, 1906, to 30th June, 1912.	DISBURSEMENTS.				Total at 30th June, 1913.	INTEREST CHARGED.			(A) DEPRECIATION. (B) REDEMPTION.	Grand Total at 30th June, 1913.
		1912-13.					Total at 30th June, 1913.	1st May, 1906, to 30th June, 1912.	1st July, 1912, to 30th June, 1913.		
		Repairs and Maintenance.	Distribution of Water.	Management.	Total.						
<i>Rural.</i>											
1. Birchip	} 25,943	} 2,116	} 1,864	} 748	} 4,728	} 30,671	} 22,604	} 5,583	} 28,187	..	} 58,858
2. Sea Lake											
3. Wycheproof											
4. Karkaroc	3,159	1,087	415	302	1,804	4,963	5,446	2,597	8,043	..	13,006
5. Long Lake	14,525	863	2,035	331	3,229	17,754	5,395	1,084	6,479	(a) 3,202	27,435
6. Tyntynder	1,288	319	832	67	1,218	2,506	998	415	1,413	..	3,919
5. Western Wimmera	17,814	1,359	3,006	797	5,162	22,976	13,914	2,471	16,385	(a) 1,000 } (b) 5,500 }	45,861
8. Wimmera United	23,031	2,923	1,561	818	5,302	28,333	16,825	4,797	21,622	(b) 4,500	54,455
<i>Urban.</i>											
9. Bacchus Marsh	1,674	23	68	69	160	1,834	1,470	597	2,067	(a) 112	4,013
10. Beulah .. .. .	..	..	35	13	48	48	..	232	232	..	280
11. Birchip	788	14	249	54	317	1,105	1,043	408	1,451	(a) 103	2,659
12. Corop .. .. .	..	..	..	..	..	..	..	19	19	..	19
13. Dimboola	3,253	197	233	93	523	3,776	843	442	1,285	(a) 500 } (b) 280 }	5,841
14. Hopetoun .. .. .	..	..	219	53	272	272	..	148	148	..	420
15. Jeparit .. .. .	..	12	43	28	83	83	..	324	324	..	407
16. Koondrook .. .. .	..	..	83	41	124	124	..	146	146	(a) 15	285
17. Lake Boga	38	1	42	5	48	86	407	90	497	(a) 24	607
18. Minyip	649	..	189	63	252	901	862	285	1,147	(a) 90	2,138
19. Natimuk	263	..	53	13	66	329	602	356	958	(b) 500	1,787
20. Rainbow	357	24	144	37	205	562	1,095	463	1,558	(a) 160	2,280
21. Rupanyup	550	9	117	42	168	718	598	229	827	(a) 84	1,629
22. Sea Lake	847	3	219	48	270	1,117	286	83	369	(a) 114	1,600
23. Wonthaggi	381	86	193	207	486	867	3,262	2,474	5,736	..	6,603
24. Woomelang .. .. .	..	4	70	19	93	93	..	234	234	..	327
25. Wycheproof	1,251	15	160	48	223	1,474	634	202	836	(a) 110	2,420
	95,811	9,055	11,830	3,896	24,781	120,592	76,284	23,679	99,963	16,294	236,849

DISTRICTS HELD IN TRUST BY THE COMMISSION.

AVOCA WATER TRUST.—BALANCE-SHEET.

STATEMENT OF RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDED 31ST DECEMBER, 1912.

Revenue Account.

RECEIPTS.				DISBURSEMENTS.			
	£	s.	d.		£	s.	d.
Bank Balances from 1911	675	9	9	Interest on Loan	223	4	3
Arrears of Rates	67	8	1	Redemption of Loan	42	1	3
Current Rate	445	18	0	Maintenance and Repairs	170	14	3
Interest on Rates	7	9	5	Management	46	0	2
Sales of Water	84	0	0	Rate Collector	48	19	3
Overpaid Rates	0	7	2	Advance to Loan Account (since repaid)	483	9	9
				Overpaid Rates	7	7	11
				Bank Charges	3	7	4
				Bank Balances, 31.12.12—			
				Charlton	238	16	5
				Quambatook	16	11	10
Total	£1,280	12	5	Total	£1,280	12	5

Statement of Assets and Liabilities.

LIABILITIES.				ASSETS.			
	£	s.	d.		£	s.	d.
Treasurer of Victoria—Loan ..	5,521	2	8	Works at Cost	8,709	5	0
Rates Overpaid	0	7	2	Less Amount			
General Account Balance	1,627	14	4	Written Off			
				Act No.			
				1625	2,494	0	0
				Repayment of			
				Loan	124	5	6
					2,618	5	6
				Arrears of Rates	319	6	8
				Loan Account—Advance to	483	9	9
				Bank Balances, 31.12.12	255	8	3
Total	£7,149	4	2	Total	£7,149	4	2

Statement of Rates.

	£	s.	d.		£	s.	d.
Current Rate	593	19	3	Current Rates Collected	445	18	0
Arrears from 1911	238	13	6	Arrears of Rates Collected	67	8	1
				Arrears carried forward to 1913	319	6	8
Total	£832	12	9	Total	£832	12	9

DISTRICTS HELD IN TRUST BY THE COMMISSION—*continued.*

CARRUM WATERWORKS TRUST.—BALANCE-SHEET.

STATEMENT OF RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDED 31ST DECEMBER, 1912.

Revenue Account.

RECEIPTS.			DISBURSEMENTS.		
	£	s. d.		£	s. d.
Bank Balance from 1911	614	3 2	Interest on Loan	676	11 10
Arrears of Rates	1,079	9 2	Redemption of Loan	131	3 2
Current Rate	1,270	13 0	Maintenance and Repairs	760	4 0
Interest on Rates	87	7 8	Flood Protection Reserve Fund	750	0 0
Rates Overpaid	0	15 6	Rate Collector	73	15 0
			Management	67	8 10
			Refund Bank Overpayments	1	7 7
			Bank Charges	2	18 7
			Cash in hand	2	10 1
			Bank Balance, 31/12/1912	586	9 5
Total	£3,052	8 6	Total	£3,052	8 6

Special Works Account.

RECEIPTS.			DISBURSEMENTS.		
	£	s. d.		£	s. d.
Balance from 1911	817	15 3	Treasury Trust Fund	800	0 0
			Rate Collector	3	2 0
			Bank Charges	0	10 0
			Bank Balance, 31/12/1912	14	3 3
Total	£817	15 3	Total	£817	15 3

Statement of Assets and Liabilities.

LIABILITIES.			ASSETS.		
	£	s. d.		£	s. d.
Treasurer, Victoria—Loan	16,731	8 7	Works at Cost	25,732	9 6
Overpaid Rates	0	15 6	Less Amount Written Off 7,732 0 0		
Balance, General Account	3,279	9 2		18,000	9 6
Total	£20,011	13 3	Flood Protection Reserve Fund	750	0 0
			Arrears of Rates	672	4 3
			Cash in hand	2	10 1
			Bank Balance, 31/12/1912	586	9 5
Total	£20,011	13 3	Total	£20,011	13 3
Special Works—	£	s. d.	Special Works—	£	s. d.
Balance of works to be carried out	1,310	0 7	Amount of Special Rate	8,144	15 6
			Less Amount Received	7,983	10 9
				161	4 9
			Balance in Trust Fund, Treasury	1,134	12 7
			Bank Balance, 31/12/1912	14	3 3
Total	£1,310	0 7	Total	£1,310	0 7

Statement of Rates.

	£	s. d.		£	s. d.
Current Rate	1,559	18 6	Current Rate Collected	1,270	13 0
Arrears from 1911	1,539	3 5	Arrears of Rates Collected	1,079	9 2
			Rates Written Off	76	15 6
			Arrears carried forward to 1913	672	4 3
Total	£3,099	1 11	Total	£3,099	1 11

Special Works Rate.

	£	s. d.		£	s. d.
Arrears from 1911	161	4 9	Arrears carried forward to 1913	161	4 9

LOAN EXPENDITURE.

STATEMENT OF LOAN EXPENDITURE FOR THE YEAR ENDED 30TH JUNE, 1913.

Name.	Loans Application Act No. 2326.			Loans Application Act No. 2431 and other Advances.			Total.		
	£	s.	d.	£	s.	d.	£	s.	d.
<i>Free Headworks.</i>									
1. Goulburn River Works (Waranga Reservoir)	26	11	0	923	14	10	950	5	10
2. Kow Swamp Works	442	10	0	1,531	12	5	1,974	2	5
3. Loddon River Works (Laanecoorie)	63	15	4	..	..	..	63	15	4
<i>Waterworks Districts.</i>									
4. Birchip, Sea Lake, and Wycheproof	2,578	2	8	11,429	15	8	14,007	18	4
5. Karkaroo	1,446	10	7	11,173	8	7	12,619	19	2
6. Kerang North-West Lakes .. .. .	..	..	..	139	5	1	139	5	1
7. Long Lake	632	7	8	1,898	18	6	2,531	6	2
8. Merbein (White Cliffs)	14	7	0	213	0	0	227	7	0
9. Tyntynder	2,722	8	1	4,555	15	4	7,278	3	5
10. Walpeup East .. .. .	..	..	..	26	0	0	26	0	0
11. Walpeup West .. .. .	..	..	..	3	7	0	3	7	0
12. Western Wimmera	308	0	4	5,988	6	2	6,296	6	6
13. Wimmera United	208	17	11	4,170	7	5	4,379	5	4
14. Wimmera Main Channels	1,926	16	10	15,128	7	1	17,056	3	11
<i>Towns.</i>									
15. Bacchus Marsh .. .. .	..	..	..	246	3	3	246	3	3
16. Berrillock	428	13	4	490	1	9	918	15	1
17. Beulah .. .. .	..	..	..	1,633	11	10	1,633	11	10
18. Birchip	91	16	5	229	4	9	321	1	2
19. Boga	19	12	6	57	18	10	77	11	4
20. Cohuna	630	14	8	2,520	14	8	3,151	9	4
21. Coliban	642	1	0	435	11	9	1,077	12	9
22. Dimboola .. .. .	..	..	..	51	18	4	51	18	4
23. Hopetoun	28	8	10	2,545	10	0	2,573	18	10
24. Jeparit	15	9	3	45	3	9	60	13	0
25. Kaneira .. .. .	..	..	..	632	4	2	632	4	2
26. Koondrook	18	0	1	547	17	10	565	17	11
27. Minyip	861	3	10	1,032	10	3	1,893	14	1
28. Rainbow	9	19	1	157	13	8	167	12	9
29. Rupanyup	0	17	6	1,681	12	4	1,682	9	10
30. Sea Lake	13	1	3	174	9	10	187	11	1
31. Ultima	87	8	1	179	7	9	266	15	10
32. Watchem	12	0	0	726	17	0	738	17	0
33. Werribee .. .. .	..	..	..	362	15	1	362	15	1
34. Wonthaggi	1,300	17	6	3,457	6	10	4,758	4	4
35. Woomelang	1,097	19	6	4,051	12	4	5,149	11	10
36. Wycheproof	321	5	3	181	13	2	502	18	5
<i>Irrigation and Water Supply Districts.</i>									
37. Bacchus Marsh and Werribee Estate	7,467	18	5	16,328	8	4	23,796	6	9
38. Boort .. .. .	..	..	..	0	14	0	0	14	0
39. Cohuna	327	19	0	918	18	2	1,246	17	2
40. Deakin	11	1	11	52	13	8	63	15	7
41. Dingee	94	6	3	5,399	13	7	5,493	19	10
42. Gannawarra	980	10	6	1,305	14	5	2,286	4	11
43. Gannawarra West	13	8	1	1,427	16	1	1,441	4	2
44. Kerang	126	0	4	700	16	2	826	16	6
45. Koondrook	32	12	3	7,102	1	0	7,134	13	3
46. Rochester	6,461	14	7	13,064	19	4	19,526	13	11
47. Rodney	2	2	0	8,884	8	10	8,886	10	10
48. Shepparton	476	17	3	376	18	6	853	15	9
49. Swan Hill	204	4	0	878	1	5	1,082	5	5
50. Tragowel Plains	719	19	2	8,302	11	0	9,022	10	2
51. Tongala, including Koyuga	2,794	15	3	5,473	12	9	8,268	8	0
52. Goulburn Main Channels	6,834	8	10	15,905	0	2	22,739	9	0
<i>Irrigation Areas.</i>									
53. Merbein (White Cliffs)	926	15	2	1,636	12	11	2,563	8	1
54. Nyah	334	2	8	601	2	8	935	5	4
<i>Miscellaneous.</i>									
55. Goulburn Levees	4,695	5	0	10,684	19	11	15,380	4	11
56. Goulburn Storages	164	10	0	2,581	2	8	2,745	12	8
57. Koo-wee-rup Drainage .. .. .	..	..	..	165	4	5	165	4	5
58. Murray River—Torrumbarry Weir Site	21	1	0	1	3	0	22	4	0
59. Murray River—Surveys, Nyah and Narrung areas .. .. .	..	..	..	1,360	19	0	1,360	19	0
60. Mildura Railway Line—Construction of tanks on adjacent Crown Lands .. .. .	..	..	..	261	10	1	261	10	1
Total	48,639	7	2	182,038	19	4	230,678	6	6

STATEMENT OF EXPENDITURE DURING THE YEAR ENDED 30TH JUNE, 1913,

IN CONNEXION WITH

BORING FOR WATER, CONSTRUCTION OF PUBLIC AND FARMERS' TANKS, AND FORMING ROADS IN THE MALLEE.

This Expenditure was met either by the Lands Department or the Public Works Department.

	£	s.	d.
1. Boring for Water	12,603	10	0
2. Mallee Tanks (Public Tanks)	10,686	7	3
3. Farmers' Tanks (Advances for)	1,000	0	0
4. Clearing Roads	8,715	5	4
Total	£33,005	2	7

ESTIMATES.

Anticipated requirements to meet Disbursements by the Commission and Estimate of the moneys available from its Revenues to provide the same for the year ending 30th June, 1914.

ESTIMATED DISBURSEMENTS.

A.		
Revenue Producing Works—		
Coliban District	£11,600	
Irrigation and Water Supply Districts	45,200	
Waterworks Districts	24,975	
Drainage and Flood Protection Districts	750	
General Expenditure and Salaries (proportion) over £250 to be apportioned to above Districts	15,200	
	£97,725	
B.		
Not Revenue Producing Works—		
General Services—		
River Gaugings, Diversions from Streams, Surveys, New Projects, Boring for Water, Land Settlement, General Expenditure and Salaries (proportion) over £250.. .. .	£7,700	
Inter-State Conference on Murray Waters	300	
Irrigation Engineering Scholarships	600	
Loan Works, Services on Account defrayed from Votes	3,000	
Waterworks Trusts Administration	1,500	
	£13,100	
C.		
Not Revenue Producing Works—		
Free Headworks—		
Goulburn-Waranga	£2,450	
Kow Swamp	1,800	
Loddon River	275	
North-West Lakes	400	
Broken River	225	
Lake Lonsdale	400	
Lower Wimmera	125	
	£5,675	
	£116,500	
ESTIMATED RECEIPTS.		
Coliban District	£38,000	
Irrigation and Water Supply Districts	82,600	
Waterworks Districts	54,500	
Miscellaneous	5,900	
	£181,000	
Estimated amount available from Revenue Producing Works to meet interest	£83,275	
Less Expenditure as per "B" and "C" above on Non-revenue Producing Works	18,775	
	£64,500	
To which add Estimated Revenues from Other Authorities—		
Waterworks Trusts	£35,000	
Local Bodies	21,000	
	£56,000	
Total Estimated amount available from Revenues of all Authorities to meet Interest	£120,500	

STATEMENT OF LOAN LIABILITY.

ESTIMATE of the sums to be provided by the State to meet Interest on its Loan Expenditure for Works of Water Supply, both State Works of Water Supply and Works vested in Authorities other than the Commission; and of the sums available from the revenues of the Commission, and from the moneys receivable from such other Authorities, to provide such Interest for the year ending 30th June, 1914:—

Works.	Loan Liability of State for Works of Water Supply at 30th June, 1913, exclusive of Melbourne Water Supply.					Interest payable by State on Net Advances.	Total Interest of £259,622 debitable to—			Estimated Amount Available from Revenues of all Authorities to meet interest, see page 36.
	Total Advances, including Cost of Loan Flotation.	Deduct Redemption Paid.	Net Advances.	(A.) Amounts Written Off. (B.) Free Head-works. (C.) Loans Unexpended.	Balance at Debit of Authorities.		(A.) Written Off. (B.) Free Head-works. (C.) Loans Unexpended.	Commission and Other Authorities.		
Waterworks Districts	£ 2,063,990	£ 27,879	£ 2,036,111	£ 169,927	£ 1,866,184	£ 70,341	£ 5,871	£ 64,470	£	
Irrigation and Water Supply Districts	1,403,049	11,896	1,391,153	575,152	816,001	48,059	19,872	28,187	64,500	
Goulburn Works (exclusive of Districts supplied are being debited with their proportion of Interest on this Expenditure	629,501	17	629,484	..	629,484	21,747	..	21,747	(after deducting £18,775 for non-revenue producing works).	
Pyke's Creek and Werribee	94,545	..	94,545	..	94,545	3,267	..	3,267		
Waterworks Trusts (including First Mildura)	1,350,580	86,935	1,263,645	327,409	936,236	43,655	11,312	32,343		
Local Bodies (Municipalities)	668,893	86,496	582,397	163,760	418,637	20,120	5,658	14,462	56,000	
Irrigation Trusts Abolished	32,754	30	32,724	32,724	..	1,131	1,131	..	(Including Interest on Revenues Advances).	
Free Headworks	1,235,554	420	1,235,134	1,235,134	..	42,670	42,670	..		
Free Grants to Local Authorities	147,046	..	147,046	147,046	..	5,080	5,080	..		
Surveys, Exploratory, and Preliminary Works, including Purchase of Land reserved for Reservoirs	96,373	..	96,373	..	96,373	3,330	..	3,330		
Loan Moneys unexpended	6,417	..	6,417	6,417	..	222	222	..		
Totals	7,728,702	213,673	7,515,029	2,657,569	4,857,460	259,622	91,816	167,806	120,500	

Dated at the Office of the State Rivers and Water Supply Commission,
Treasury Gardens, Melbourne, the 29th day of October, 1913.

ELWOOD MEAD, Chairman.

WM. CATTANACH, Commissioner.

J S. DETHRIDGE, Commissioner.

M. NALLY, Secretary