

1915.
 —
 VICTORIA.

STATE RIVERS AND WATER SUPPLY COMMISSION.

T E N T H
 ANNUAL REPORT.
 —
 1914-15.

PRESENTED TO BOTH HOUSES OF PARLIAMENT PURSUANT TO THE PROVISIONS OF
 THE WATER ACT 1915.

APPROXIMATE COST OF REPORT.		<i>£ s. d.</i>
Preparation—not given.	.. .. .
Printing (1,106 copies)	.. .. .	35 0 0

By Authority:

ALBERT J. MULLETT, GOVERNMENT PRINTER, MELBOURNE.

THE GREAT WAR.

ROLL OF HONOUR.

Thirty members of the Commission's Staff enlisted for Active Service in defence of the Empire. They have been granted leave of absence till the end of the war, and meanwhile their interests will be safeguarded in every possible way.

As a mark of appreciation a Roll of Honour has been designed and provided by the Commissioners and the Staff. This was formally established by the Hon. Wm. Hutchinson, Minister of Water Supply, at the Head Office, Melbourne. The following names now appear on the Roll :—

A. R. McCONCHIE.	A. F. J. HARRISON.
D. T. CURDIE.	V. G. COADY.
C. D. COWAN.	G. E. IREDALE.
C. GALLOP.	J. FLEMING.
A. McCOLL.	W. F. NEVILL.
C. E. D'ALTON.	L. V. BROWN.
J. O'BRYAN.	F. R. LUCAS.
F. ROGERSON.	J. F. McKELLAR.
C. THOMSEN.	W. MURCOTT.
W. LAMBERT.	L. G. MERKEL.
G. MAXFIELD.	C. F. THOMSEN.
R. G. GREIG.	G. CAMERON.
A. CAMERON.	L. J. SCOTT.
J. G. BURNELL.	L. T. KEEP.
R. B. BENNETT.	G. FOGARTY.

With deep regret it has to be announced that the undermentioned have been killed in action :—

**C. E. D'ALTON.
J. O'BRYAN.**

STATE RIVERS AND WATER SUPPLY COMMISSION.

ANNUAL REPORT, 1914-15.

In compliance with the provisions of the *Water Act* 1915, the State Rivers and Water Supply Commission submits the following Report and Statement for the Financial Year 1914-15, and Estimates for the ensuing year.

Since the last Report was submitted, there has been a change in the Commission's membership. In May last, Mr. Elwood Mead, who had been Chairman since November, 1907, resigned, as he had accepted the position of Chairman of the Supreme Court of Review for Federal Irrigation Projects under the Government of the United States of America. Mr. Commissioner Wm. Cattnach has been appointed Chairman of the Commission, and the vacancy in membership was filled by the appointment of Mr. E. Shaw, C.E.

WORKS UNDER CONTROL OF COMMISSION.

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

A.—FREE HEAD-WORKS.

DESCRIPTION OF WORKS.	Capital Debt at 30th June, 1915. 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	£ 14,853
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	735,682
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 ..	187,084
5. Lake Lonsdale Reservoir :—Reservoir at Lake Lonsdale, on the Little Winmerra River, near Ledcourt	49,054
6. Loddon River Works :—Laanecoorie Weir, on the Loddon; Bridgewater Weir, on the Loddon; Kinypanial Weir, on the Loddon	167,379
7. Long Lake Pumping Works :—Inlet 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	£1,199,543

B.—WATERWORKS DISTRICTS.

Distributary Works within Districts under the control of the Commission.

Name of District (Including Urban Districts).	Total Capital Expenditure.	Capital Written Off by Acts 1625 and 1651.	Redemption Paid to Treasury.	Capital Debt at 30th June, 1915.
	£	£	£	£
1. Birchip	} 208,783	700	1,885	206,198
2. Sea Lake				
3. Tyrrell				
4. Wycheproof				
5. Carwarp	4,293	..	..	4,293
6. Coliban	1,223,333	..	..	1,223,333
7. Karkaroc	84,983	..	1,943	83,040
8. Kerang North-west Lakes (Free Headworks excluded)	2,106	..	..	2,106
9. Long Lake (Free Head- works excluded)	41,937	..	421	41,516
10. Ouyen	1,062	..	..	1,062
11. Tyntynder	37,402	..	..	37,402
12. Walpeup East	3,390	..	..	3,390
13. Walpeup West	2,321	..	..	2,321
14. Western Wimmera	246,879	132,835	13,316	100,728
15. Wimmera United	183,692	36,392	11,064	136,236
16. Wonthaggi	62,561	..	1,037	61,524
Wimmera Main Channels	92,795	..	..	92,795
Wimmera Storages—				
Black Swamp	16,199	..	..	16,199
Taylor's Lake	2,424	..	..	2,424
Whitton Swamp	3,284	..	..	3,284
	2,217,444	169,927	29,666	2,017,851
Carried forward				£3,217,394

WORKS UNDER CONTROL OF COMMISSION—*continued.*

Capital Debit at 30th June, 1915. Exclusive of Cost of Loan Flotation.

Brought forward

£
3,217,394

C.—IRRIGATION AND WATER SUPPLY DISTRICTS.

Distributary Works within Districts under the control of the Commission.

Name of District (Including Urban Divisions).	Total Capital Expenditure.	Capital written off by Acts 1625 and 1651.	Redemption paid to Treasury.	Capital Debit at 30th June.
	£	£	£	£
1. Bacchus Marsh	54,616	8,906	493	45,217
2. Boort	54,739	35,259	394	19,086
3. Campaspe	62,715	52,685	305	9,725
4. Cohuna	120,998	49,197	371	71,430
5. Deakin	93,646	34,748	2,144	56,754
6. Dingee	12,272	..	..	12,272
7. Dry Lake	1,704	686	299	719
8. Gannawarra	79,971	33,179	180	46,612
9. Kerang	83,908	35,338	710	47,860
10. Koondrook	108,397	30,872	1,475	76,050
11. Merbein	65,964	..	..	65,964
12. Nyah	22,466	..	..	22,466
13. Rochester	109,121	..	..	109,121
14. Rodney	360,639	149,949	6,015	204,675
15. Shepparton	44,918	..	..	44,918
16. Swan Hill	52,913	19,799	306	32,808
17. Tongala	59,029	..	..	59,029
18. Tragowel Plains	184,511	124,534	444	59,533
	1,572,527	575,152	13,136	984,239

984,239

D.—IRRIGATION AND WATER SUPPLY DISTRICTS—
MAIN SUPPLY WORKS.

Cost to be Apportioned to Districts benefited on the Basis of Water Allotment.

Name of District	Tentative Debits to Districts, 1914-1915—				Total
	Rodney	Tragowel Plains	Rochester	Tongala	
1. Goulburn Main Channels (Free Headworks excluded)—	.. ..	.. ..	.. ..	.. ..	129,622
East Goulburn ..	.. ..	.. ..	.. ..	.. ..
Waranga Reservoir to Campaspe ..	.. ..	.. ..	.. ..	.. ..
Campaspe to Serpentine ..	.. ..	.. ..	.. ..	.. ..
Main Distributary Channels ..	.. ..	.. ..	.. ..	.. ..
	£120,000	100,000	74,000	67,000	
	57,000	24,000	15,000	..	
	£457,000				241,275
					193,807
					18,533
					583,237
2. Goulburn Storages (Free Headworks excluded)—	.. ..	.. ..	.. ..	.. ..	28,407
Sugarloaf Reservoir ..	.. ..	.. ..	.. ..	.. ..	7,867
Waranga Reservoir Enlargement ..	.. ..	.. ..	.. ..	.. ..	36,274
3. Pyke's Creek and Werribee Scheme—					63,198
Pyke's Creek Reservoir ..	.. ..	.. ..	.. ..	.. ..
Diverting Weir and Distributary Works, Werribee ..	.. ..	.. ..	.. ..	.. ..
Melton Reservoir ..	.. ..	.. ..	.. ..	.. ..
Lerderberg River Works ..	.. ..	.. ..	.. ..	.. ..
	£55,000				46,905
					25,441
					475
					136,019

Carried forward

£4,957,163

WORKS UNDER CONTROL OF COMMISSION—*continued.*Capital Debt
at 30th June,
1915.
Exclusive
of Cost of Loan
Flotation.

Brought forward £ 4,957,163

E.—WATERWORKS TRUSTS DISTRICTS.

DISTRICTS HELD IN TRUST BY THE COMMISSION.

Name of Trust.	Total Advances by State.	Capital written off by Acts 1625 and 1651.	Redemption paid to Treasury.	Capital Debt at 30th June, 1915.
	£	£	£	£
1. Avoca Water Trust—				
Rural District	8,709	2,494	809	5,406
Urban District (Quambatook) ..	3,773	..	29	3,744
2. Carrum Waterworks Trust ..	25,732	7,732	1,629	16,371
3. Loddon United Waterworks Trust	21,234	1,717	1,797	17,720
	59,448	11,943	4,264	43,241
			Grand Total	£ 4,957,163

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, 20,812 square miles, equal to about 13,320,000 acres. The extent of land under irrigated culture, for all kinds of crop, is 324,345 acres, an increase of 7,058 acres over the area irrigated in the previous year. The area irrigated includes about 17,000 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 152, as shown in the following statement :—

Controlling Authorities.	Number of Town Supplies.	Estimated Population Served.
Commission	40	72,000
Waterworks Trusts	95	154,000
Local Governing bodies... ..	17	69,000
Totals	152	295,000

LANDS UNDER IRRIGATED CULTURE.

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

STATEMENT OF THE EXTENT OF IRRIGATION AND OF AREAS OF DIFFERENT KINDS OF CROPS WATERED—YEAR 1914-15.

Name of District.	Area Irrigated (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	2,173	5,022	1,357	1,179	1,954	995	75	12,755
Rodney	22,446	23,294	2,744	20,150	5,938	3,530	414	78,516
Deakin	8,117	3,432	1,975	4,214	69	847	..	18,654
Tongala	3,224	6,300	2,040	3,030	1,176	2,360	..	18,130
Rochester	3,500	10,665	4,791	4,140	939	3,831	205	28,071
Dingee	454	639	424	771	50	354	..	2,692
Tragowel Plains	7,389	1,024	6,205	11,724	25	..	..	26,367
Totals	47,303	50,376	19,536	45,208	10,151	11,917	694	185,185
<i>Supplied from Kow Swamp State Works.</i>								
Kerang	1,009	797	3,326	2,029	54	59	36	7,310
Dry Lake .. .. .	..	..	183	194	2	..	..	379
Lands supplied direct (outside Districts)	773	1,945	108	648	8	8	..	3,490
Totals	1,782	2,742	3,617	2,871	64	67	36	11,179
<i>Supplied from Loddon State Works.</i>								
Boort	1,466	458	431	1,917	26	..	..	4,298
Totals	1,466	458	431	1,917	26	..	..	4,298
<i>Supplied from other State Works.</i>								
Bacchus Marsh	34	1,544	74	256	74	96	..	2,078
Campaspe	322	296	66	160	21	80	..	945
Cohuna	3,337	6,644	2,727	8,750	178	516	..	22,152
Gannawarra	4,989	1,394	4,854	9,065	51	40	..	20,393
Koondrook	5,896	1,181	2,862	6,916	151	179	428	17,613
Merbein	700	430	..	..	3,170	..	866	5,166
Nyah	210	78	327	..	868	230	56	1,769
Swan Hill	3,062	3,649	818	1,432	53	125	95	9,234
Werribee	72	17	86	19	992	..	..	1,186
Western Wimmera	40	905	..	..	101	30	20	1,096
Totals	18,662	16,138	11,814	26,598	5,659	1,296	1,465	81,632
<i>Supplied from other sources.</i>								
Kerang North-West Lakes	3,865	901	2,177	3,604	..	..	..	10,547
First Mildura	552	365	..	..	11,146	..	..	12,063
Coliban	176	219	50	253	1,620	88	19	2,425
Kerang—Outside Districts (Private Diversions)	852	18	134	1,012	..	..	..	2,016
Other private diversions throughout the State	Details not available.						15,000	15,000
Grand Totals, 1914-15	74,658	71,217	37,759	81,463	28,666	13,368	17,214	324,345
Grand Totals, 1913-14	74,927	55,535	21,374	110,193	26,489	8,536	2,233	317,287

COMPARATIVE STATEMENT OF THE EXTENT OF IRRIGATION, 1910-11 TO 1914-15.

	Area Irrigated (Acres).				
	1910-11.	1911-12.	1912-13.	1913-14.	1914-15.
Goulburn State Works	28,849	76,740	96,800	136,303	185,185
Kow Swamp State Works	23,650	17,395	30,454	34,409	11,179
Loddon State Works	26,862	21,483	18,885	14,336	4,298
Other State Works	41,896	67,042	59,374	80,457	81,632
Kerang North-West Lakes	3,496	13,543	4,546	12,020	10,547
First Mildura Trust Works	12,000	11,379	12,209	12,037	12,063
Coliban State Works	3,160	2,937	3,632	3,745	2,425
Private Works in Kerang District	2,944	4,814	5,083	5,980	2,016
Other Private Works throughout the State	11,000	14,500	19,000	18,000	15,000
Totals	153,857	229,833	249,983	317,287	324,345

VALUATIONS, RATES, AND COMPULSORY IRRIGATION CHARGES.

The statements which follow 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 Urban Districts of Kaneira, Nyah, and Werribee; while the Gannawarra and Gannawarra West Irrigation and Water Supply Districts were amalgamated and a compulsory irrigation charge was levied on the combined areas. Previously this charge was only levied on the original Gannawarra portion.

In twenty-three 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 thirteen districts the Commission made and levied compulsory irrigation charges, details of which are set out hereunder.

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, 1915.	Period of Rate.	Estimated Number of Persons dwelling in District.
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IRRIGATION AND WATER SUPPLY DISTRICTS.

	Valuation by Commission. £		<i>s.</i> <i>d.</i>		
1. BACCHUS MARSH ..	11,111 1 0	1st July, 1914, to 30th June, 1915	650
2. BOORT ..	15,464	1st Division ..	2 0	" " "	720
		2nd Division ..	1 0	" " "	
3. CAMPASPE ..	9,857	1st Division ..	1 8	" " "	470
		2nd Division ..	0 10	" " "	
		3rd Division ..	0 5	" " "	
4. COHUNA ..	16,750	1st Division ..	2 0	" " "	972
		2nd Division ..	1 0	" " "	
5. DEAKIN ..	71,908	1st Division ..	1 6	" " "	4,050
		2nd Division ..	0 9	" " "	
		3rd Division ..	0 4½	" " "	
6. DINGEE ..	2,587	..	.. 1 0	" " "	200
7. DRY LAKE ..	250		(No rate made)	— — —	11
8. GANNAWARRA ..	10,835	1st Division ..	2 0	1st July, 1914, to 30th June, 1915	526
		2nd Division ..	1 0	" " "	
9. KERANG ..	17,637	1st Division ..	2 6	" " "	805
		2nd Division ..	1 3	" " "	
		3rd Division ..	0 7½	" " "	
10. KOONDROOK ..	11,285	1st Division ..	2 0	" " "	529
		2nd Division ..	1 0	" " "	
11. MERBEIN ..	1,637	..	.. 2 0	" " "	950
12. NYAH ..	859	..	.. 2 0	" " "	300
13. ROCHESTER ..	40,755	1st Division ..	1 0	" " "	2,650
		2nd Division ..	0 6	" " "	
		3rd Division ..	0 3	" " "	
14. RODNEY ..	142,973	1st Division ..	1 0	" " "	4,550
		2nd Division ..	0 6	" " "	
		3rd Division ..	0 3	" " "	
15. SHEPPARTON ..	14,780	..	.. 1 0	" " "	958
16. SWAN HILL ..	6,645	..	.. 2 0	" " "	500
17. TONGALA ..	13,684	..	.. 1 0	" " "	1,240
18. TRAGOWEL PLAINS ..	32,818	1st Division ..	1 0	" " "	1,000
		2nd Division ..	0 6	" " "	

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, 1915.	Period of Rate.	Estimated Number of Persons dwelling in District.
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WATERWORKS DISTRICTS.

	Valuation by Commission.	£	s.	d.		
19. AXE CREEK ..	1,277	..	2	0	1st July, 1914, to 30th June, 1915	220
20. BIRCHIP ..	29,009	1st Division ..	2	0	" " "	2,350
		2nd Division ..	1	0	" " "	
		3rd Division ..	0	6	" " "	
21. HARCOURT ..	5,527	..	1	6	" " "	550
22. KARKAROOC..	79,857	1st Division ..	1	6	" " "	3,000
		2nd Division ..	0	9	" " "	
		3rd Division ..	0	4½	" " "	
23. KERANG NORTH-WEST LAKES	6,078	1st Division ..	1	0	" " "	263
		2nd Division ..	0	6	" " "	
24. LONG LAKE ..	41,823	1st Division ..	2	6	" " "	1,700
		2nd Division ..	1	3	" " "	
		3rd Division ..	0	7½	" " "	
25. SEA LAKE ..	52,552	1st Division ..	2	0	" " "	2,000
		2nd Division ..	1	0	" " "	
		3rd Division ..	0	6	" " "	
26. TYNTYNDER ..	17,052	1st Division ..	2	9	" " "	1,000
		2nd Division ..	1	4½	" " "	
		3rd Division ..	0	8¼	" " "	
27. TYRRELL ..	33,794	1st Division ..	2	6	" " "	2,050
		2nd Division ..	1	3	" " "	
		3rd Division ..	0	7½	" " "	
28. WALPEUP EAST ..	30,741	1st Division ..	0	5	" " "	1,500
		2nd Division ..	0	2½	" " "	
29. WALPEUP WEST ..	45,082	1st Division ..	0	4	" " "	2,500
		2nd Division ..	0	2	" " "	
30. WESTERN WIMMERA ..	240,362	1st Division ..	1	0	" " "	10,000
		2nd Division ..	0	6	" " "	
		3rd Division ..	0	3	" " "	
31. WIMMERA UNITED ..	255,588	1st Division ..	1	0	" " "	8,720
		2nd Division ..	0	6	" " "	
		3rd Division ..	0	3	" " "	
32. WYCHEPROOF ..	44,517	1st Division ..	2	0	" " "	2,090
		2nd Division ..	1	0	" " "	
		3rd Division ..	0	6	" " "	

URBAN DIVISIONS AND DISTRICTS.

	Municipal Valuation.	£	s.	d.		
33. BACCHUS MARSH ..	7,559	..	1	6	1st July, 1914, to 30th June, 1915	1,600
34. BERRIWILLOCK ..	536	..	4	0	" " "	105
35. BEULAH ..	3,649	..	2	9	" " "	550
36. BIRCHIP ..	5,692	..	2	6	" " "	880
37. COHUNA ..	1,916	..	3	6	" " "	411
38. COROP ..	400	..	2	0	" " "	90
39. DIMBOOLA ..	6,430	..	1	9	" " "	1,000
40. HOPETOUN ..	2,931	..	2	9	" " "	450
41. JEPARIT ..	3,716	..	2	6	" " "	500
42. KANEIRA ..	531	..	4	0	" " "	130
43. KOONDROOK ..	2,366	..	3	0	" " "	450
44. LAKE BOGA ..	1,332	..	3	0	" " "	270
45. MINYIP ..	3,057	..	3	0	" " "	650
46. NATIMUK ..	2,496	..	1	6	" " "	420
47. NYAH ..	253	..	2	6	" " "	50
48. RAINBOW ..	6,201	..	2	3	" " "	850
49. RUPANYUP ..	2,111	..	3	0	" " "	450
50. SEA LAKE ..	2,836	..	3	0	" " "	500
51. ULTIMA ..	2,029	..	3	0	" " "	250
52. WATCHEM ..	1,120	..	3	6	" " "	180
53. WERRIBEE ..	6,661	..	1	0	1st January, 1915, to 30th June, 1915	1,800
54. WONTHAGGI ..	17,448	..	1	9	1st July, 1914, to 30th June, 1915	4,700
55. WOOMELANG ..	2,572	..	3	0	" " "	400
56. WYCHEPROOF ..	3,365	..	2	6	" " "	680

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, 1915.	Period of Rate.	Estimated Number of Persons dwelling in District.
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COLIBAN SYSTEM.

	Municipal Valuation. £	s. d.		
57. COLIBAN	316,189	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, 1914, to 30th June, 1915	65,000

WATERWORKS TRUSTS.

	£	s. d.		
58. AVOCA	30,053	.. 0 4½	1st January, 1915, to 31st December, 1915	1,300
59. CARRUM	20,307	1st Division .. 4 0 2nd Division .. 1 6 3rd Division .. 0 3 4th Division .. 0 4 5th Division .. 2 0	" " "	800
60. QUAMBATOOK (URBAN)	2,294 Valuation by Commission. £	.. 3 3	" " "	300
61. LODDON UNITED ..	93,845	1st Division .. 0 8 2nd Division .. 0 4 3rd Division .. 0 2	" " "	2,600

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.
1. BACCHUS MARSH ..	6,624	3,293	3,293	20s.	1st October, 1914, to 30th April, 1915
2. COHUNA	35,043	22,755	22,755	5s.	1st September, 1914, to 30th April, 1915
3. DINGEE	4,895	4,538	2,262	6s	1st September, 1914, to 30th April, 1915
4. GANNAWARRA ..	44,157	16,563	16,563	5s.	1st September, 1914, to 30th April, 1915
5. KOONDRICK ..	52,781	13,825	13,825	5s.	1st September, 1914, to 30th April, 1915.
6. MERBEIN	5,862	5,284	13,168	15s.	1st August, 1914, to 30th April, 1915
7. NYAH	2,907	2,313	5,753	14s.	1st August, 1914, to 30th April, 1915
8. ROCHESTER ..	119,367	25,410	25,410	5s.	1st October, 1914, to 30th April, 1915
9. RODNEY	265,370	182,561	47,703	5s.	1st October, 1914, to 30th April, 1915
10. SHEPPARTON ..	18,764	16,762	16,762	5s.	1st October, 1914, to 30th April, 1915
11. SWAN HILL ..	13,546	11,073	11,073	5s.	1st September, 1914, to 30th April, 1915
12. TONGALA	22,300	16,600	16,600	5s.	1st October, 1914, to 30th April, 1915
13. TRAGOWEL PLAINS	180,223	122,193	24,442	6s.	1st September, 1914, to 30th April, 1915

CONTRACTS.

STATEMENT OF CONTRACTS ENTERED INTO DURING THE YEAR ENDED
30TH JUNE, 1915.

No.	Name of Contractor.	Work or Supply.	Amount (Loan and Vote).	
			£	s. d.
1348	W. Mathers	Storage Tanks, Yaapeet	514	14 7
1349	Geo. C. Waites	Portion Drainage Channel, No. 4, Cohuna	238	2 6
1351	Jas. Murray	Firewood, Long Lake	115	13 0
1355	A. Cannard	Portion Donald Main Channel	106	19 4
1356	A. Cannard	Portion Donald Main Channel	102	11 0
1357	Robt. Gibbon	Portion Donald Main Channel	107	5 9
1361	John Sullivan	Portion Donald Main Channel	120	0 0
1362	H. W. L. Tucker	Portion Donald Main Channel	221	0 10
1366	W. Glover	Tank, Parish of Kia	58	6 8
1368	H. Walker	Firewood, Merbein	621	16 3
1369	M. R. Brooks	Firewood, Merbein	193	2 6
1370	Janet Krake	Firewood, Merbein	300	0 0
1371	J. Spellacy	Firewood, Merbein	468	0 0
1373	Australian Portland Cement Co.	1,000 casks cement	575	0 0
1375	A. C. McLean	Tank, Ouyen Township	1,022	18 4
1376	J. P. Manning	Cleaning Dam, Parish of Pallarang	83	6 8
1377	Johns and Waygood Ltd.	Steel Roof Trusses, Merbein	122	4 6
1378	W. G. Spencer	Firewood, Koondrook	109	5 6
1380	James Day	Windmills, Tanks, &c., Goulburn-Waranga	184	16 9
1381	Rubicon Lumber and Tramway Co.	Timber, Sugarloaf Reservoir	160	0 0
1382	Clark, Kidd and Co.	Timber, Sugarloaf, Reservoir	116	0 0
1384	Australian Portland Cement Co.	3,000 casks cement	1,725	0 0
1386	A. C. McLean	Portion Embankment, Black Swamp Storage	1,570	8 4
1387	W. Mathers	Portion Embankment, Black Swamp Storage	2,075	0 0
1388	F. Clifford	Portion Embankment, Black Swamp Storage	1,038	2 10
1389	A. C. McLean	Portion Embankment, Black Swamp Storage	558	11 10
1390	Mary Janet Horkings	Cartage of Cement, Melton Dam	52	1 9
1391	T. Church	Firewood, Cohuna	139	1 4
1392	W. A. Arnold and E. Cockayne	Firewood, Cohuna	133	12 0
1393	F. Nancarrow and C. Jorgensen	Firewood, Torrumbarry	329	6 8
1394	F. Nancarrow and C. Jorgensen	Firewood, Torrumbarry	312	3 5
1395	Fleming and McGrath	Firewood, Torrumbarry	459	13 6
1396	C. Mawson	Firewood, Cohuna	155	3 3
1397	J. Nicholas	Firewood, Nyah	368	15 0
1398	D. V. Mannix	Firewood, Cohuna	692	11 0
1399	J. B. Greenway	Firewood, Koondrook	245	16 8
1400	Edwin Greenway	Firewood, Koondrook	128	6 6
1401	Norman Gilmore	Firewood, Koondrook	237	0 6
1402	Ernest Greenway	Firewood, Koondrook	125	7 6
1403	J. J. Mannix	Firewood, Cohuna	219	16 2
1404	W. Kervin and E. O. Heine	Firewood, Cohuna	411	4 2
1405	W. W. Moore & Sons Pty. Ltd.	Three timber quarters, &c., Rochester	976	16 6
1406	A. Robinson	Centrifugal Pump, Carwarp	62	0 0
1407	Cowley's Eureka Ironworks Pty.	20 Pivoted gates, Regulator, Little Murray River	170	0 0
1408	Mephan Ferguson Pty. Ltd.	Cast Iron Pipes, Cohuna	50	8 11
1409	Mephan Ferguson Pty. Ltd.	Steel pipes, Maldon Water Supply	2,962	10 0
1410	Australian Portland Cement Co.	6,000 casks cement	3,450	0 0
1411	McKay and Huggard	Drainage Channels, Shepparton	320	10 0
1412	Richard Chamings	Portion Embankment, Whitton's Swamp Storage	242	18 11
		Carried forward	24,753	10 11

CONTRACTS ENTERED INTO DURING THE YEAR ENDED 30TH JUNE, 1915—continued.

No.	Name of Contractor.	Work or Supply.	Amount (Loan and Vote).		
			£	s.	d.
		Brought forward	24,753	10	11
1413	John O'Donnell	Portion Embankment, Whitton's Swamp Storage	316	13	9
1414	J. Torney	Portion Embankment, Whitton's Swamp Storage	299	4	6
1415	W. Taylor	Portion Embankment, Whitton's Swamp Storage	275	18	3
1416	John O'Donnell	Portion Embankment, Whitton's Swamp Storage	287	14	10
1417	W. H. Byron and Stephen Templer	Portion Embankment, Whitton's Swamp Storage	278	14	5
1418	Jas. J. Gibson	Portion Embankment, Whitton's Swamp Storage	285	15	4
1419	W. Taylor	Portion Embankment, Whitton Swamp Storage	302	9	1
1420	L. Tuana	Bywash for Dam, Little Murray River, Boga ..	575	17	6
1421	The Australian Wood Pipe Co. Ltd.	Wood Pipes, Maldon Water Supply	1,781	17	6
1422	The Australian Wood Pipe Co. Ltd.	Wood Pipes, Maldon Water Supply	5,827	14	2
1423	Jno. F. Newton	Portion Embankment, Whitton's Swamp Storage	280	7	1
1424	Jno. F. Newton	Portion Embankment, Whitton's Swamp Storage	280	16	2
1425	W. W. Moore and Sons Pty. Ltd.	Two timber quarters for Channel Guards, Cohuna	688	13	6
1427	Cowley's Eureka Ironworks Pty.	Multitubular Boiler and Superheater, Cohuna ..	1,048	19	0
1428	Janet Krake	Firewood, Merbein	180	17	7
1429	J. Spellacy	Firewood, Merbein	267	18	6
1430	Starr and McClelland	Enlargement Waranga Reservoir Embankment ..	6,566	11	8
1431	Starr and McClelland	Enlargement Waranga Reservoir, Embankment ..	5,952	0	0
1432	Starr and McClelland	Enlargement Waranga Reservoir Embankment ..	5,952	0	0
1434	Geo. F. Taylor	Portion Embankment, Taylor's Lake Storage ..	1,967	1	8
1435	Geo. F. Taylor	Portion Embankment, Taylor's Lake Storage ..	2,000	16	8
1436	Geo. F. Taylor	Portion Embankment, Taylor's Lake Storage ..	2,057	1	8
1437	A. Leonard and H. McCann	Portion Embankment, Taylor's Lake Storage ..	2,011	19	2
1438	A. Leonard and H. McCann	Portion Embankment, Taylor's Lake Storage ..	2,034	10	5
1439	A. Leonard and H. McCann	Portion Embankment, Taylor's Lake Storage ..	1,916	9	2
1440	W. Schmedes	Firewood, Castlemaine	106	5	0
1441	Welch, Perrin and Co.	Boiler Feed Pump, Cohuna	92	10	0
1442	Wm. Kingston	Portion Embankment, Taylor's Lake Storage ..	1,660	12	10
1443	S. M. Stansmore	Enlargement, Waranga Reservoir Embankment ..	1,193	6	8
1444	S. M. Stansmore	Enlargement, Waranga Reservoir Embankment ..	1,193	6	8
1445	Australian Portland Cement Co.	6,000 casks cement	4,800	0	0
1446	John Ketterer	Enlargement, Waranga Reservoir Embankment ..	1,114	0	0
1447	John Ketterer	Enlargement, Waranga Reservoir Embankment ..	1,176	10	0
1448	John Wilson	Channel Meter Wheels	1,037	4	2
1449	C. M. Runciman	Enlargement, Waranga Reservoir Embankment ..	1,127	10	0
1450	H. B. Irwin	Enlargement, Waranga Reservoir Embankment ..	1,122	10	0
1451	H. B. Irwin	Enlargement, Waranga Reservoir Embankment ..	1,122	10	0
1452	C. M. Runciman	Enlargement, Waranga Reservoir Embankment ..	1,345	0	0
1453	L. Tuana	Enlargement, Waranga Reservoir Embankment ..	1,016	13	4
1454	L. Tuana	Enlargement, Waranga Reservoir Embankment ..	945	16	8
1455	Janet Krake	Firewood, Merbein	181	5	0
1456	W. Taylor	Waitchie Storage Tanks (Sec. No. 1)	220	0	0
1457	W. Taylor	Waitchie Storage Tanks (Sec. No. 2)	220	0	0
1458	F. O. Wallin	Firewood, Swan Hill	1,212	10	0
1459	Jno. M. Harman	Firewood, Koondrook	118	15	0
1460	C. T. Hollingsworth and Co.	Firewood, Kerang	118	15	0
1461	Margt. S. Stone	Firewood, Kerang	120	16	8
1462	A. De Forest	Firewood, Merbein	425	0	0
1463	H. Walker and W. Langanke	Firewood, Merbein	850	0	0
1464	P. Mannix, sen.	Firewood, Nyah	475	0	0
1465	John Smith	Firewood, Nyah	150	0	0
1466	W. Nicholas	Firewood, Nyah	287	10	0
1467	Edward H. North	Firewood, Cohuna	516	13	4
1468	Wm. Kervin and E. O. Heine	Firewood, Cohuna	400	0	0
1469	Michael Malone	Enlargement, Waranga Reservoir Embankment ..	3,441	13	4
1470	Thos. Malone	Enlargement, Waranga Reservoir Embankment ..	3,207	0	0
1471	Daniel Nolen	Enlargement, Waranga Reservoir Embankment ..	1,082	10	0
1472	Robert Fellows	Firewood, Cohuna	200	0	0
1473	T. Bubb	Firewood, Cohuna	250	0	0
1474	C. O. Munzel	Firewood, Cohuna	100	0	0
		Total	100,822	16	2

STATEMENT OF CONTRACTS ENTERED INTO DURING THE YEAR ENDED 30TH JUNE, 1915, 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.
1350	Jas. Torney	Tank, Larundel	284	0	0
1352	John Powell	Tank, Winnambool	262	6	8
1353	John Sylvester Dunn	Tank, Winnambool	68	6	8
1354	Walter Taylor	Tanks. Nos. 1 and 2, Koimbo	190	0	0
1358	Jno. O'Donnell	Tank, Yallum	750	0	0
1359	Jno. O'Donnell	Tank, Patchewollock North	187	10	0
1360	G. A. Gill	Tank, Wild Dog Reserve, Boorongie	99	0	0
1363	J. E. Mills	Tank, Winnambool	172	0	0
1364	W. Mathers	Tank, Tempy	228	2	6
1365	J. E. Mills	Tank, Patchewollock	162	9	9
1367	H. Wharton	Tank, North of Manangatang	85	0	0
1372	Harold Lugg	Tank, Woornack	127	10	0
1374	R. H. Rowett	Tank, Patchewollock	63	13	4
1379	J. E. Mills	Tank, Yallum North	181	13	10
1383	Murphy Bros.	Poulton's and Paradise Tanks, Nypo	212	0	11
1385	J. Walker	Banner's Tank, North of Manangatang	85	0	0
1426	Geo. P. Conlon	Boring, Pallarang and Worooa	682	10	0
1433	J. M. Crosbie	Cleaning out Ouyen Tank	124	0	0
		Total	3965	3	8

PIECE-WORK.

In addition to the contracts entered into, a large extent of channel work was carried out as piece-work at current rates in the Cohuna, Rochester, Shepparton, Stanhope, Tongala, Tragowel Plains, Wimmera-Mallee and North-West-Mallee districts. The amount of work carried out under this arrangement was very much increased during the year as it was found that while affording a large measure of relief to small contractors it allowed of expeditious construction of a number of urgent works. The expenditure in this respect amounted to £42,260.

WORKS CARRIED ON OR COMPLETED DURING THE YEAR ENDED 30TH JUNE, 1915.

COLIBAN DISTRICT.

The disastrous effects of the drought of 1914-15, which resulted in shortage of supplies in all water storages, was especially felt in connexion with the supply to the Coliban District, and this, together with the growing demand for water for irrigation, was deemed by the Commission to be sufficient warrant for recommending an increase of storage at the head-works of the system. The Government having approved of a proposal to raise the embankment of the Upper Coliban Reservoir, a commencement was made on works by which the depth of water will be increased by 11 feet and the storage capacity by 2,000 million gallons. The estimated cost of the work is £20,000.

The supply to Maldon, which in the past, owing to deterioration of the compound main of 6-in. and 5-in. pipes, has been both inadequate and costly, is now being improved by the provision of a new 8-in. supply main, partly of wood and partly of steel pipes, connected with a pipe head basin on the Specimen Gully Channel, 2 miles south of Harcourt. This will deliver an ample supply by gravitation to all but the highest part of the town, for which special provision will be made. The estimated cost is £15,000.

At Kennington, near Bendigo, the old gold-field reservoir, known as Upper Grassy Flat, is being restored at a cost of £2,000, to assist in supplying local irrigation requirements.

One of the Harcourt races was extended 2 miles at a cost of £350 to irrigate lands not previously supplied, while the Fryerstown race was enlarged at a cost of £250.

Advantage was taken of cessation of flow during the drought to carry out extensive cleaning and repair work throughout the whole channel system.

IRRIGATION AND WATER SUPPLY DISTRICTS.

RODNEY DISTRICT.

Although many applications for extension of distributaries to unsupplied lands were received, the Commission did not consider it advisable to undertake any large extensions until new storages are provided. When such storages are completed the advisability of supplying portion of the district on a basis of one acre-foot of water to each irrigable acre in lieu of one-fourth of an acre-foot as at present will be considered. Owners of over 50,000 acres have already signified their desire to have their lands so supplied. Work during the year was confined to channel extensions of about 2 miles, remodelling existing channels, and installing new measuring appliances.

SHEPPARTON DISTRICT.

Two miles of channels were constructed to supply new subdivisions. This brings the total length of channelling in the district to 68 miles. In addition to the regular maintenance works, some necessary channel lining was done. Preparations are being made for the installation of registering meters where these have not already been provided. Out of the total area of 18,800 acres, some 17,000 acres are now fully commanded by the Commission's channel system, and are therefore subject to the compulsory irrigation charge.

SWAN HILL DISTRICT.

In the older portions of the district the usual maintenance works have been effected, while a considerable area on vacant blocks has been graded by teams employed by the Commission and partly sown to lucerne. In Burton's Estate and adjoining lands, embracing an area of 4,000 acres in all, distributary works have been completed, and meters provided for settlers who have recently taken up the closer settlement blocks therein. It is proposed to add this area to the Swan Hill District as from 1st July, 1915.

DISTRICTS ADMINISTERED FROM KERANG CENTRE.

In the Koondrook District some channels and structures required in connexion with the estates to be made available for closer settlement were carried out.

In the Kerang District emergency works necessitated by the drought, comprising installation of temporary pumping plants and wooden flume to supply from the Murray River those districts ordinarily dependent on Kow Swamp Storage, were undertaken. These works served to mitigate the effects of the greatest drought yet experienced in the district.

For the Kerang North-west Lakes surveys have been made and estimates prepared for a scheme by which the surface levels of Lake Charm, Race-course Lake, and Kangaroo Lake would be raised.

DISTRICTS ADMINISTERED FROM COHUNA CENTRE.

In the Cohuna District 4 miles of main drainage channel were completed, making the total length of such channel now constructed 13 miles. These drainage works have had a marked effect in lowering the level of the underground water throughout the affected area. It is proposed to extend the drainage channel (known as No. 1) in Leitch's Creek for a distance of 3 miles.

An additional boiler has been provided at the pumping station, while the other boilers have been overhauled and reset. The provision of the new boiler will have the effect of minimizing risk of breakdown.

In the Gannawarra District 78 meters have been installed for the measurement of irrigation supplies, and it is proposed to add some 50 more during the coming season.

DISTRICTS ADMINISTERED FROM LODDON CENTRE.

In Tragowel Plains District, all old timber flumes have now been replaced by concrete structures. The channel system, which has been undergoing overhaul since the introduction of Goulburn water to the district, is now in such good order that little beyond ordinary maintenance will be required for some years to come. The installation of registering meters throughout the district is practically complete.

In Boort District repairs have been effected to the northern channels, and preparations are being made for some increase of capacity of Lake Boort and also for improvement of the supply to Lake Meering.

In the Dingle District works for distribution of supply are practically complete, and registering meters have been installed for all holdings.

DISTRICTS ADMINISTERED FROM ROCHESTER CENTRE.

In the portion of the Rochester District on the west side of the Campaspe, distributary systems have been completed for closer settlement lands near Echuca, and for some 5,000 acres near Tennyson.

On the east side of the Campaspe, surveys and investigations were carried out for channels to convey water when available to such lands as may prove suitable for irrigation in the parish of Echuca North.

A new regulator to improve the supply to the district was constructed in the main western channel at about 46 miles from Waranga Reservoir, and new structures and appliances are being provided at other points on the same channel with a view to securing more accurate measurement of the supply to Rochester and other districts.

Considerable lengths of distributary channel have, where found necessary, been lined with cement mortar.

In Campaspe District the usual maintenance works have been carried out, and preparations have been made for cleaning the western channel at the first opportunity.

DISTRICTS ADMINISTERED FROM TONGALA.

In Deakin District repairs have been effected to the Wanalta Weir, a new gate has been put in the sluice way, and check bars to relieve flood waters have been provided in the crest. Maintenance work was heavy owing to an unusual quantity of sand being blown into the channels.

In Stanhope Estate, which is being prepared for closer settlement, the necessary channel system is now approaching completion; the lengths of channels already constructed amount to about 50 miles.

In Tongala District supply channels have been constructed to meet requirements arising out of further subdivision of lands. Some of the old Trust channels have been remodelled and the wooden structures thereon replaced with concrete ones. An unusual amount of maintenance was necessitated by high winds causing erosion of channel banks and filling parts of the channels with drift sand.

BACCHUS MARSH DISTRICT AND WERRIBEE SCHEME.

In Bacchus Marsh District $3\frac{1}{2}$ miles of concrete-lined channel have been constructed, making the system of distributary channels approximately complete for all lands now subject to the compulsory charge. With a view to improving the efficiency of delivery, concrete lining is in progress on some of the old Trust channels.

It is proposed to constitute the area of 5,400 acres at Werribee, which has already been provided with supply channels, an Irrigation and Water Supply District. The Melton Reservoir, with a storage capacity of 10,000 acre-feet, which is to supply this area, is now nearing completion.

The reticulation and other works for the supply of Werribee Township have been completed, and the Urban District proclaimed. Electric power for pumping the water from the service basin to the elevated concrete tank for supply of the township is obtained under agreement from the Werribee Shire Council.

MERBEIN DISTRICT.

The irrigation season was notable for the very low flow of the Murray from the middle of December until the middle of May, and as a consequence temporary dams were constructed by the various governing Authorities at Mildura, Curlwa, and Wentworth. For the same reason it was found necessary to construct a similar dam for Merbein. The site selected was about two miles below the pumping station.

The additional pumping unit, particulars of which appear in last Annual Report, was brought into use early in 1915, and proved of great service at the time of maximum demand.

The Commission is extending the work of channel lining wherever it is found necessary, the quantity of such work for the year being very considerable.

NYAH DISTRICT.

Despite frequent stoppages in the flow of the Murray at Nyah during the season a fairly efficient service to all irrigated lands was maintained. A temporary dam constructed by the settlers in the river was found to aid pumping operations.

The new work during the year consisted mainly, as at Merbein, of channel lining. Meters have been installed for measurement of the supply to the Tyntynder Waterworks District. Preparations have been made for extensions of channel lining and certain drainage works which will materially improve the area.

WATERWORKS DISTRICTS.

LONG LAKE DISTRICT.

Operations during the year were confined to short extensions of the channel system totalling some 9 miles. The principal of these was an extension of the Cannie Ridge Channel southwards to connect with a branch to Quambatook town storage, thus enabling a supply of Murray River water to be sent for town requirements. This was rendered necessary by the complete failure, during the drought, of the Avoca River, from which Quambatook draws its supplies.

TYNTYNDER DISTRICT.

Good progress was made during the year with the extension of channels to serve the newly-settled areas lying to the west and north, including the high-level channel to the parishes of Coonimur and Burra. Altogether some 75 miles of branch channels were constructed.

A commencement was made with the excavation of a large earthen storage near Waitchie railway station for the supply of the township and adjacent district. The total capacity of this is 31,000 cubic yards, 10,000 cubic yards being in excavation. A windmill supply to the township will, later on, be installed.

WIMMERA-MALLEE WATER SUPPLY.

The severe drought conditions which prevailed during the whole of the year strained the water resources very heavily generally throughout the State, but very much less in the Wimmera-Mallee areas than in many other parts, chiefly on account of the extensive and valuable local storages, which had been provided by the Commission at all the district centres to meet such an emergency. Consequently, most Wimmera and Mallee towns had ample supplies for all purposes during last summer. Works of all kinds were vigorously pushed on, a sum of £85,000 having been spent upon them during the year. These works, while necessary in themselves, did much to provide employment for settlers suffering from the effects of the drought. The main supply channel system is now so well advanced that it should be completed early in the coming year. Particular relief will be afforded in the Western Wimmera District by that known as the main western channel, as it will supply, by gravitation, a very large part of the district now watered by pumping from the Wimmera River at Dooen.

Up to the present the only headwork storage for Wimmera waters has been Lake Lonsdale. During the early part of the year there was sufficient water in this storage to give practically the whole of the dependent channel systems their usual annual supply. On account, however, of the continually extending use of Wimmera waters for the supply of new country to the northward, arrangements have been made for further storage provision, ample to meet all possible requirements.

Black Swamp storage, of 17,000 acre-feet, on Fyans Creek, the construction of which was anticipated in the last Report, was substantially advanced during the year. In addition to this, it was decided to provide still further reserve storage at Taylor's Lake in the parish of Drung Drung, near Horsham. The capacity of this storage, the embankment of which was commenced during the year, will be 30,000 acre-feet. It will be filled from the Wimmera River by means of a diversion weir and suitable inlet channel some 6 miles in length, and will, eventually, be connected with almost the whole of the Wimmera-Mallee system of channels. The cost of this storage, diversion weir, and inlet channel will be £50,000. The construction of the works to bring a supply to Taylor's Lake storage will at the same time enable the valuable depressions lying immediately to the west of Taylor's Lake, known as Pine Lake, Green Lake, and Duck Lake, to be brought into use at a comparatively low cost. It is not yet certain to what extent these subsidiary storages could be drawn upon, but it is believed that they can be made to supply at least a further 30,000 acre-feet at a very moderate cost.

The carrying out of these proposals will increase the total available storage for the Wimmera-Mallee system from 45,480 to some 122,000 acre-feet.

The Avon Regulator, referred to in the last Report, has been completed, while the Donald main channel therefrom is now supplying the town storage tanks by gravitation. The new works installed by the Commission on behalf of the local Trust for the supply of Donald are now completed, at a cost of about £6,300. It is proposed to utilize the Donald main channel to supply the country to the east of Lake Buloke and the districts of Corack, Corack East, and Wycheproof. This channel will also be eventually extended north-easterly and northerly to connect with the Avoca-Wycheproof channel, near Wycheproof, and, by further extensions past Quambatook to Goschen, will be linked up with the Long Lake and Tyntynder systems. This extension will thus make the surplus waters of the Wimmera, Richardson, Avon, and Avoca Rivers available for a supply by gravitation to Long Lake and Tyntynder districts.

WESTERN WIMMERA AND WIMMERA UNITED DISTRICTS.

The work of remodelling the old channel system in these districts has been continued, and 20 miles of new branch channels, mainly in the Western Wimmera District, have been constructed. In the Wimmera United District the Whitton Swamp storage, holding some 1,300 acre-feet, for the supply of Warracknabeal township and its immediate district, has been completed, with the exception of the inlet channel, which is now in course of construction. The Warracknabeal Waterworks Trust has approved of a new scheme of works designed by the Commission for the supply of the town at an estimated cost of £8,500.

BIRCHIP, WYCHEPROOF, SEA LAKE, AND TYRRELL DISTRICTS.

Some 75 miles of branch channels have been made during the year in these districts, chiefly for the service of the newly settled areas in the Tyrrell District. New works for the improvement of Sea Lake town supply have also been completed. These consist of a concrete stand-pipe of 120,000 gallons capacity, an electrically-driven pumping plant, extensions of reticulation, and an embankment round the lake, whereby its depth is increased by 4 feet.

The earthen storage tanks near Manangatang and Cocamba railway stations were completed, and proved of great service during the drought. Surveys are being made for a channel from the Tyrrell west channel, in the parish of Mittyack, to serve the township of Ouyen and that eastern portion of Walpeup Shire which cannot be supplied by water from bores.

KARKAROOC DISTRICT.

The channel system in this district was very considerably increased during the year, some 55 miles having been constructed. The large earthen storage at Yaapect of 170,000 cubic yards capacity was completed, and will be filled during the coming season, thus establishing another very valuable reserve.

A reticulated supply for Lascelles township was installed. The works, which cost £1,300, comprise a concrete stand-pipe of 90,000 gallons capacity, two 20-foot diameter wind-mills, and usual pipe mains.

NORTHERN MALLEE WATER SUPPLY.

Northern Mallee areas this year have, in common with the rest of the State, suffered very severely from the drought. To minimize its effects as far as practicable a number of works was put in hand by the Government; included in these was the ploughing of some 2,700 acres which was made available for Mallee farmers at Tongala and Werribee. An extensive series of local works, tank sinking, and road clearing, were also undertaken, and, in addition, small advances were made to settlers for the carrying out of works for the improvement of their individual holdings. This policy has not only enabled farmers to remain on their land and to come through the drought with a minimum of hardship, but also to put a larger area under crop in the Northern Mallee than in any previous year. During the year £17,783 has been expended on roads and works of water supply.

TANKS.

Twenty-three tanks have been completed during the year, aggregating a capacity of 111,000 cubic yards. The total number of tanks now constructed is 123, with an aggregate storage capacity of 700,000 cubic yards.

BORING FOR WATER.

During the year two successful bores were sunk in the known fresh water bearing area.

A bore was put down near Nypo on the west of the Outlet Creek. As salt water only was obtained, operations were discontinued at a depth of 404 feet. With a view of testing for supplies of stock water several shallow bores were tried in the Sunset country north of Cowangie, the results, however, were disappointing, and work has been stopped.

The number of successful bores is now 79, and they provide a useful supply to an area of some 700 square miles.

ROAD CLEARING.

Over 750 miles of roads have been cleared during the year, including several important roads outside the settled areas. One runs from Manangatang to Euston on the Murray, a distance of 30 miles. Another from Ouyen to Slab Hut on the Murray, and a third from Kulwyn to Ridley's Pines, east of Ouyen, connecting the east and west settled parishes. The total length of roads now cleared is 2,850 miles.

CLEARING NEW TERRITORY.

In December some 20,000 acres of the territory on the South Australian Border forming part of the area hitherto in dispute as to ownership were thrown open for settlement. The work of preparing these blocks for cultivation was taken in hand by the Commission. This was done mainly as a drought relief measure, and considerably aided farmers already in the neighbourhood. It was also of great value to the new blockholders, enabling them to crop their holdings immediately upon allotment. £4,183 was expended in the work of clearing 13,000 acres.

OUYEN TOWN SUPPLY.

The work of providing the township of Ouyen with an urban supply was commenced. An earthen tank of 40,000 cubic yards capacity was excavated to the north-west of the town, and other necessary works are now in hand.

CARWARP WATERWORKS DISTRICT.

A scheme for domestic and stock supply to the proposed Carwarp Waterworks District is now nearing completion. A pump to deliver the supply has been installed at Redcliff on the River Murray. This is driven by an engine with vertical multitubular boiler made available from other works. A main channel runs from the pumping station to the northern boundary of the area to be supplied, and thence various distributary channels, totalling a length of 45 miles, have been constructed.

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 $23\frac{1}{2}$ 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 147 miles, the total storage provided by the Reservoir and Weir being 218,000 acre-feet. The irrigation districts supplied are Shepparton, Rodney, Deakin, Tongala, Rochester, Dingee, and Tragowel Plains, to which will be added the new Stanhope Closer Settlement Area.

The abnormal conditions of the season necessitated the channel being kept in use throughout the whole year, hence some of the usual maintenance work had to be postponed.

To provide for conveyance of increased supply to Waranga Reservoir, earthen embankments, with a concrete culvert beneath them for the cross drainage, have been constructed in substitution for the large timber flume over the depression at seven miles from the Goulburn Weir.

Investigations are being made of a proposal by which, as requirements increase, a large proportion of the supply to Waranga Reservoir might be conveyed there by a direct cut channel or channel and tunnel from a point on the existing channel at the crossing of the Rushworth Railway line.

The enlargement of the Waranga Reservoir by raising the embankment to provide for a further depth of water of 10 feet was commenced early in 1915. The present capacity of 197,000 acre-feet will thus be increased to about 330,000 acre-feet. Contracts for the placing of about 605,000 cubic yards of earthwork for widening the base of the embankment have already been let.

WEIR—LITTLE MURRAY RIVER.

To prevent recurrence of the danger of Long Lake and Lake Boga not filling, also for the purpose of providing headworks for the proposed new Boga District, hereinafter referred to, and increasing the supply by gravitation to the Swan Hill District, the Commission decided to convert the earthen dam which was constructed as a drought emergency work in the Little Murray River about 3 miles below the offtake to Lake Boga into a permanent work. This has been done by constructing a substantial reinforced concrete weir with twenty-seven openings 11 feet wide, of which twenty

can be closed with removable stop-bars and have their sill height at R.L. 218, which is 8 feet below flood level. The other seven are fitted with centre pivot gates, with sill at R.L. 219.50. The work was finished in May, 1915, at a cost of £5,000, and has proved quite satisfactory in the high-river conditions that have since prevailed.

DRAINAGE SCHEMES.

KOO-WEE-RUP.—The works for drainage of the Koo-wee-rup Swamp area still remain in abeyance pending agreement among the settlers in respect to the financial obligations involved.

MOE.—Surveys of Moe Swamp were completed and a scheme for the protection of its lands from flooding was drawn up. Settlers, however, were not prepared to undertake the financial responsibility involved, and consequently no work was done by the Commission.

CARDINIA.—A scheme for the protection of lands west of Koo-wee-rup and liable to flooding from Cardinia, Toomuc, and Deep Creeks has been prepared and will be submitted to the land-owners interested for their consideration.

RIVER GAUGING.

As provided by section 38 of the *Water Act 1905* (now *Water Act 1915*), the work of gauging and regulating the flow of 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 on rivers and creeks in the State is now 44. During the year the field observation and office work connected with these gaugings have been advanced. The result of gauging thirty-six streams at forty-six points for the years 1913 and 1914 has been tabulated and will be published in due course.

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, over 200 new permits having been issued during the year in addition to renewals of those granted in former years.

Owing to the dry season and abnormally low flow of water in streams, the supervision of private diversions demanded an exceptional amount of attention during the latter part of the year.

The number of authorized diversions in force is now :—

Yearly permits	945
Flood permits	5
Licences	17
	967

NEW STORAGES.

MELTON RESERVOIR.

Steady progress has been made with the contract works for the Melton reservoir for the supply of Werribee Irrigation area. This storage has practically the whole drainage area of the Werribee River as a catchment, and will impound about 10,000 acre feet of water. The height of the dam, which is of earth and rock, with diaphragm of reinforced concrete, and core of clay, is about 100 feet above the river bed. When the excavations were made for the foundations of the diaphragm and core it was found necessary, owing to uneven quality of the basalt rock, to go deeper than was anticipated from the results of the test shafts. This involved considerable extra work and time. It is expected that all works in connexion with this storage will be practically completed about the end of 1915.

SUGARLOAF RESERVOIR.

The construction of the Sugarloaf reservoir, on the Goulburn River, about 18 miles above Alexandra, has been commenced. The capacity of the first stage of this work will be between 240,000 and 300,000 acre feet ; but its benefit to the commanded

districts will be even greater than these figures denote, because this reserve of water in store will permit of allocation in the first half of each irrigation season of an additional 80,000 acre feet obtainable by direct diversion from the river.

The dam is to be a "rock fill" one, with diaphragm of reinforced concrete, and core of clayey material. Its height will be 135 feet above river bed.

Sand pits and a quarry have been opened up, a crushing plant has been installed, and considerable progress has been made with excavations for outlet works and concrete core walls, while in addition temporary works, such as tram line for conveyance of materials, storehouses for cement, dwellings for resident staff, and recreation-room for the workmen—of whom over 200 are employed—have been provided.

WARANGA RESERVOIR ENLARGEMENT.

The capacity of the Waranga reservoir is being increased from 197,000 to about 330,000 acre feet, by enlarging and raising the embankment, so as to provide for an additional 10 feet in depth of water. This work was commenced in March, 1915, and contracts have already been let for earthwork amounting to 605,000 cubic yards. The increasing demand for water for irrigation in the districts already supplied from the reservoir induced the Commission to recommend its enlargement. It is estimated that the work will be completed in about two years.

UPPER COLIBAN RESERVOIR.

The need for a greater reserve of stored water at the head of the Coliban system to provide for domestic use, irrigation, and mining requirements throughout the Bendigo and Castlemaine Districts, having been fully proved during the drought, a commencement was made early in 1915 on the enlargement of the Upper Coliban reservoir.

The works will increase the depth of water by 11 feet, and the capacity by 2,000 million gallons (about 7,300 acre feet). Besides safeguarding the requirements of populations dependent on the pipe reticulations, the additional storage will specially increase the security, and provide for extension, of the irrigation interests dependent upon the open channels of the Coliban System.

WIMMERA STORAGES.

To supplement supplies to the several districts in the Wimmera-Mallee area two very suitable natural basins—Black Swamp and Taylor's Lake—are being converted into controllable storages. Their capacities respectively are 17,000 and 30,000 acre feet. Particulars in detail of the works for filling and distributing the water from these works will be found under "Wimmera-Mallee Water Supply."

Among minor storages being brought into operation are Batyo Catyo Swamp, near Donald, and Whitton's Swamp, near Warracknabeal, which, have a combined capacity of about 6,000 acre feet.

STORAGE DIAGRAM.

To convey a clear idea of the rate at which storages for water in Victoria are being provided by the Government a diagram is appended showing comparatively the capacity in 1902 of the State's storage works, the present capacity, and the capacity that will exist when the works now actually in hand are completed. From this it will be seen that in 1902 the total storage capacity was 172,000 acre feet; at present it is 384,000 acre feet, and when the works in hand are completed it will be 900,000 acre feet.

MURRAY RIVER WATERS.

An Act ratifying the Agreement between the Prime Minister of the Commonwealth and the Premiers of the States of New South Wales, Victoria, and South Australia, has been passed by the Parliament of each of the three States, and the agreement only awaits ratification by the Commonwealth Parliament.

The principal provisions of the Agreement are—

- (a) The appointment of a Commission of four, one representing each of the contracting Governments, to give effect to the Agreement. This Commission will be called the Murray River Commission.

- (b) The carrying out of works for—Storage on the Upper Murray and at Lake Victoria; Weirs and Locks in the River Murray from its mouth to Echuca and in the River Murrumbidgee from its junction with the River Murray to Hay, or alternatively to the latter, Weirs and Locks to an equivalent expenditure in the River Darling upstream from its junction with the River Murray.
- (c) The provision of funds for these works, the total cost of which is estimated at £4,663,000, by the Contracting Governments in the following proportions:—
- | | | | |
|-----------------|----|----|------------|
| Commonwealth | .. | .. | £1,000,000 |
| New South Wales | .. | .. | £1,221,000 |
| Victoria | .. | .. | £1,221,000 |
| South Australia | .. | .. | £1,221,000 |

- (d) The distribution of waters between the three interested States.

The Agreement also provides that the Governments of the three States shall each as soon as practicable cause to be prepared and submitted to the above Commission for its approval a general scheme of the works to be constructed by them respectively under the Agreement.

The Ratifying Act for Victoria provides for construction of works on behalf of its Government by the State Rivers and Water Supply Commission.

Because of its position in the portion of the river in which works are to be constructed under the Agreement, the proposed Torrumbarry Weir and Lock, which in the past has been strongly recommended for construction by this Commission, will now be one of the works to be submitted to the Murray River Commission for its approval, and such action is proposed so soon as the ratification of the Agreement by the Commonwealth Parliament and the appointment of the Commission have been effected.

The testing of sites for the proposed storage on the Upper Murray River has been proceeded with throughout the year; unfortunately it has to be recorded that on some of the sites, notably Cumberoona, the depth to rock is greater than was anticipated on the basis of the borings made thirteen years ago for the Murray River Royal Commission of 1902.

At the end of the summer, when the Murray River was at its lowest, an inspection of its bed from Echuca to Wentworth was made by an engineer of the New South Wales Commission for the purpose of locating any sites that appeared favorable for the proposed locks. The result of such inspection appears on pages 44 to 46 of the Report issued by the Acting-Commissioner for Water Conservation and Irrigation in New South Wales for the year ended 30th June, 1915.

GOULBURN RIVER FLOOD PROTECTION.

The position in respect to the scheme to protect the areas liable to flooding from the Goulburn River below Shepparton remains practically unchanged since last Report. This may be due, in a large measure, to the flow of the river in 1914 during the months from August to November, when there is usually most anxiety respecting floods, being abnormally low. In respect to this scheme the Commission feels that it has no other course than to withhold recommendations involving any further considerable expenditure until those who would derive benefit have expressed their willingness to assume the financial obligations involved.

INVESTIGATIONS OF PROPOSALS FOR NEW IRRIGATION SCHEMES.

BOISDALE SCHEME.

Following on the surveys made to determine the feasibility of developing irrigation in the Maffra district to aid the sugar-beet industry, a scheme was prepared for the irrigation of the Boisdale Estate. The proposed works comprise a weir in the Avon River immediately below the junction of the Valencia Creek, a main channel 2 miles long from the weir to the estate and 12 miles of distributary channels on the estate. Total estimated cost of the scheme is £24,800. It would be capable of delivering about 2,000 acre-feet of water on the settlers' holdings at a cost of about £1 per acre-foot. The scheme has been submitted to the interested land-owners for consideration.

EPPALOCK SCHEME.

Proposals, made some years ago, for the storage at Eppalock of the waters of the Campaspe that now flow to waste in most years, were revived during the drought period, and strongly urged by prospective irrigators for favorable consideration. Apart from the heavy cost this scheme would involve, difficulty arises from the fact that the water that could be made available with reasonable certainty in dry seasons would be insufficient for all the lands which could be commanded. With a view of preventing waste that might arise from endeavouring to spread the water too widely, a contour survey is being made with a view to determining as accurately as possible the most suitable field for use of the water if the scheme is carried out.

KERANG NORTH-WEST LAKES SCHEME.

In view of the growing importance of the Kerang North-west Lakes as storages for conservation of supplies for domestic and stock use and irrigation, the Commission is investigating a proposal to raise the surface level of Lake Charm, Race-course Lake, and Kangaroo Lake by about 4 feet. The expenditure involved being considerable, it is probable that some intermediate step may be deemed advisable until financial arrangements can be made that would warrant the carrying out of the complete scheme.

BOGA IRRIGATION AND WATER SUPPLY SCHEME.

Investigations have been made for the irrigation of about 10,000 acres extending north-west from the channel that now supplies Lake Boga to Swan Hill, and including the portion of Pental Island between these places. The headworks of the scheme would be the new weir in the Little Murray River. The main channel on the south side of this river would have a capacity of 200 cusecs at its offtake, and besides supplying intervening lands would convey a sufficient supply for the whole of the Swan Hill district by gravitation. On the Pental Island side the capacity of the channel would be 60 cusecs. It is estimated that in all years but those of extreme drought water for the commanded areas would be available until the middle of January in each irrigation season. The estimated cost of the works of the whole scheme, inclusive of the headworks, is £34,100.

MARIBYRNONG RIVER SCHEME.

For many years past requests for the provision of a storage on the Maribyrnong River or its tributaries have been preferred by the public bodies interested in the irrigation of the lands adjoining.

The Konagaderrer Basin, on the Deep Creek, about 18 miles from Melbourne, has been suggested as a very suitable site, and an investigation is being made to determine its value for storage, and the extent to which water if stored would be used.

WORKS CONTROLLED BY OTHER AUTHORITIES.

A number of works was during the year carried out by Waterworks Trusts and other Authorities on the approval of the Commission.

The First Mildura Irrigation Trust has submitted, for the approval of the Commission, proposals for installing new boilers at its pumping plants at an estimated cost of £14,000. It is believed that the extra efficiency thus obtained will, while improving the supply to the 12,000 acres of land already planted, allow of an extension of irrigation to some 2,400 acres not previously watered. A further pumping plant for the supply of the town has also been installed.

Two Waterworks Trusts were constituted to provide and control supplies for the townships of Hepburn and Mortlake. New services were installed at Tongala and Wahgunyah. Pipe extensions and other additions were made by the local Authorities at Benalla, Boort, Bright, Colac, Donald, Dunolly, Echuca, Euroa, Kilmore, Korumburra, Kyabram, Lancefield, Lilydale, Lorne, Lowan Shire, Morwell, Murchison, Murtoa, Nhill, Pyramid Hill, Rochester, St. Arnaud, Seymour, Swan Hill, Tarnagulla, Tungamah Shire, Upper Macedon, Warracknabeal, Warrnambool, and Wodonga.

The Ballarat system was greatly improved by the addition of the Moorabool reservoir, of 1,365 million gallons capacity, which is now completed.

Proposals for improvement of the existing supplies at Ararat, Avenel, Beechworth, Benalla, Boort, Chiltern, Clunes, Healesville, Heathcote, Inglewood, Kerang, Koroit, Maryborough, Mildura, Stawell, and Yarram, and new schemes for the supply of Apollo Bay, Kaniva, Mornington Peninsula, Rosedale, and Toora, were investigated.

GENERAL.

THE DROUGHT.

The drought of 1914 will long be remembered in Northern Victoria for its severity. The following figures from the Commonwealth Meteorological records show the extent to which the rainfall was deficient as compared with the average, at well-known centres in the affected area :—

—	Rainfall for 1914.	Average Annual Rainfall.	Deficiency.
	(Inches.)	(Inches.)	(Inches.)
Alexandra	16·22	27·00	10·78
Benalla	13·24	26·04	12·80
Bendigo	12·20	21·40	9·20
Cobram	8·45	16·79	8·34
Corryong	17·98	28·26	10·28
Donald	7·35	16·11	8·76
Echuca	6·86	16·81	9·95
Jamieson	25·85	42·27	16·42
Kerang	6·00	13·81	7·81
Mildura	4·69	11·04	6·35
Seymour	10·43	23·15	12·72
Shepparton	9·87	18·11	8·24
Tallangatta	16·04	32·33	16·29
Wodonga	18·13	26·41	8·28

For the whole State the mean rainfall for 1914 was 14·66, as against the average of 24·51 inches for all annual records to date.

One of the first effects of the shortage of rain in the northern irrigation areas was to create a demand for water much earlier in the season than usual. Until about the end of November it was possible to supply practically all demands, but the inevitable result of the drought being general over the gathering grounds as well as over the lands of the river basins became evident in rapidly failing river flows. By the end of November, 1914, the Murray had fallen to 584 cubic feet per second at Tocumwal, and about the middle of the following December, as the result of diversions in New South Wales and Victoria from the stream between Tocumwal and Swan Hill, the flow at the latter place ceased entirely.

The situation became so acute that representatives of New South Wales, South Australia, and Victoria conferred in Melbourne, and agreed to a system of intermittent diversion designed to share as fairly as possible the available water among the irrigation districts and others having diversion rights. It was only by these restrictive measures that the down-stream users of water were prevented from being deprived entirely of supply.

Very early in the season it became evident that the flow was not likely to rise sufficiently to afford the usual gravitation supply to the Kow Swamp Storage and Kerang District. Temporary pumping plants consisting of two 20-in., two 18-in., two 15-in., and four 12-in. pumps with a combined capacity of about 150 cubic feet per second were therefore installed at Torrumbarry headworks. By this means a supply for irrigation of fodder crops was maintained while water in the river lasted with immense advantage to all concerned. The extra cost involved by this pumping is being borne by the users of the water.

To aid the Long Lake District and lands in the vicinity of Lake Boga an earthen dam was constructed in the Little Murray River near the offtake to Lake Baker. By this means the Long Lake pumping plant was enabled to continue work during the whole of the drought.

In the districts dependent on the Goulburn River, although it was found possible to supply the greater proportion of the water allotted as rights, the abnormal demand on storage early in the season, together with the extreme shortness of rainfall on the catchment of the Goulburn River during the last quarter of 1914, caused the gravitation supply from the Waranga Reservoir to be exhausted early in 1915. Here, again, emergency pumping was resorted to with the result that water which could not otherwise be drawn from the reservoir was made available for young fruit trees, and, to some extent, for fodder crops.

Throughout the Waterworks districts the principal difficulty in coping with drought conditions arose from the filling of distributary channels by drifting sand. Generally, it may be stated that the schemes in these districts stood well the extremely severe test to which they were subjected.

The diagram illustrative of the volume of flow of the Murray River at Mildura in each year since 1865 appended to this Report will show more readily than figures how extreme the shortage of flow in 1914 was in comparison with all of the other years except 1902.

CONCESSION TO CONDITIONAL PURCHASE LESSEES.

In view of the unavoidable shortage of water resulting from the drought that took place in the Irrigation Districts, it was felt that some concession should be made to conditional purchase lessees of closer settlement blocks in such districts, and the Government agreed, on the recommendation of the Commission, to give lessees the option of taking advantage of a "Suspension Scheme" whereby their land instalments for the first three years of their occupancy could be suspended, and in its place interest charged, such interest in turn being capitalized and repaid over a period of $31\frac{1}{2}$ years commencing from the end of the suspension period. The majority of the lessees have intimated their intention of taking advantage of the scheme.

INCREASE IN THE IRRIGATED ACREAGE.

While the net increase in the acreage irrigated this year as compared with last year is only some 7,000 acres, the increase in the area watered from the Goulburn system shows an increase of over 48,000 acres. Decreases were shown in the area watered from the Kow Swamp Storage, which, as previously stated, was affected by the abnormally low flow of the Murray, and in the area watered from the Loddon River, which, too, was severely reduced in flow owing to the drought conditions. Notwithstanding the shortage in all river supplies, it is gratifying to note, however, that the area watered for the year—324,345 acres—is a record for the State.

PROGRESS OF CLOSER SETTLEMENT.

There has been a steady application during the year for closer settlement blocks in the irrigation districts. The majority of the applicants are those having local experience, and are of a type likely to prove successful settlers. The districts generally are showing marked progress, continually increasing areas being put under orchards, and lucerne or similar useful fodder crops. For instance, in the Shepparton closer settlement area, in which one-third was thrown open to settlement in 1910, and the balance as late as 1912, there are, out of a total area of 9,200 acres, no less than 2,000 acres planted to orchards and 2,600 acres seeded to lucerne, while in other irrigated areas somewhat similar conditions prevail.

The subjoined table shows clearly the areas already subdivided, the families residing on such lands when purchased, and the number now occupying blocks under the State's Closer Settlement Scheme. From this it will be seen that there are now twelve times as many families on these areas as there were prior to their purchase and subdivision by the State.

CLOSER SETTLEMENT IN IRRIGATION DISTRICTS.

Settlement.	Lands purchased and Subdivided by the State.		Subdivided into—		No. of families thereon when purchased.	No. of Closer Settlement Blocks occupied and families thereon.
	Total Area.	No. of Properties.	No. of Closer Settlement Blocks.	Average Area.		
	acres.			acres.		
Shepparton No. 1	3,200	7	105	29	6	104
Shepparton No. 2	6,000	13	146	38	13	139
Kyabram	1,000	1	31	30	3	27
Tongala	15,200	31	248	59	30	192
Bamawm	13,400	28	173	73	21	153
Nanneella	8,600	16	106	78	6	95
Cornelia Creek (including Koyuga)	6,700	1	76	85	..	60
Cohuna	11,500	27	133	83	8	88
Swan Hill	5,400	18	83	64	10	61
Swan Hill (Burton's)	1,500	1	58	23	..	20
Werribee	6,200	1	148	42	6	93
Koondrook	2,400	4	33	68	3	21
Echuca	3,000	5	26	109	4	26
Dingee	470	3	17	26	1	15
Stanhope (portion only) ..	1,400	1	23	62	2	15
Nyah	3,000	1	129	22	..	97
Merbein (Crown Lands) ..	6,000	..	202	29	..	190
	94,970	158	1,737	..	113	1,396

LANDS AVAILABLE FOR CLOSER SETTLEMENT IN IRRIGATION DISTRICTS.

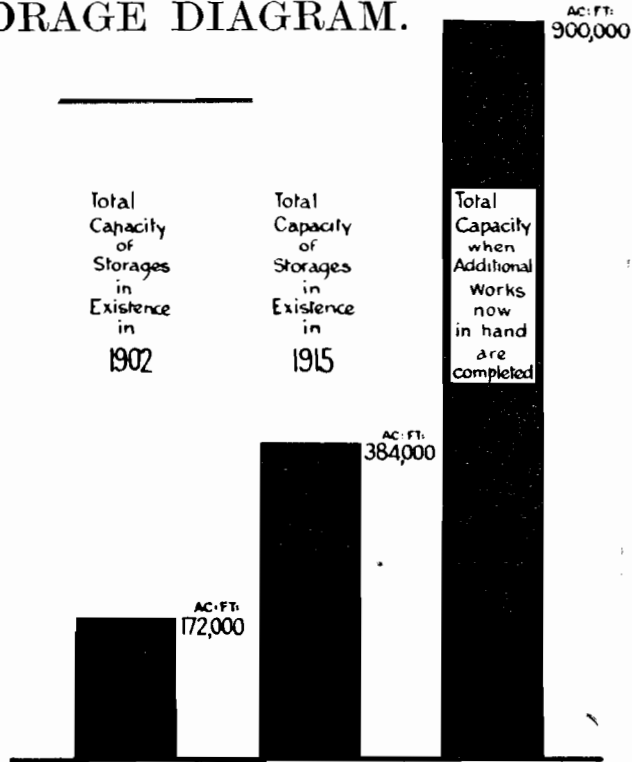
At the beginning of the year there was a total of 320 blocks available for settlement, of an aggregate area of 18,000 acres. During the year five additional estates were thrown open, viz., Steer's and Bennett's Estates in Koondrook District, which were subdivided into sixteen allotments, totalling 1,500 acres; McCumisky's Estate, in Rochester District, comprising ten allotments, totalling 150 acres; Burton's Estate, at Swan Hill, comprising fifty-nine blocks, with a total area of 1,350 acres; and 1,400 acres of the Lauderdale portion of Stanhope Estate, which provided twenty-three holdings.

Out of a total area of 92,000 acres (being the total area shown in above table, less allowance for roads and channels) so far made available, 75,000 acres, divided into 1,396 holdings, have been settled, inclusive of Nyah and Merbein. The balance, 17,000 acres, is still available in 345 allotments of sizes varying from 2 to 100 acres each.

Additional lands about to be made available include Watson's Myall Estate, in the Koondrook District, which will provide 8 additional holdings, of an average area of 130 acres; McDonald's Estate, near Kyabram; the balance of the Lauderdale portion of the Stanhope Estate; and the second portion of the Kyabram Estate. These three last-named estates will provide 149 additional blocks.

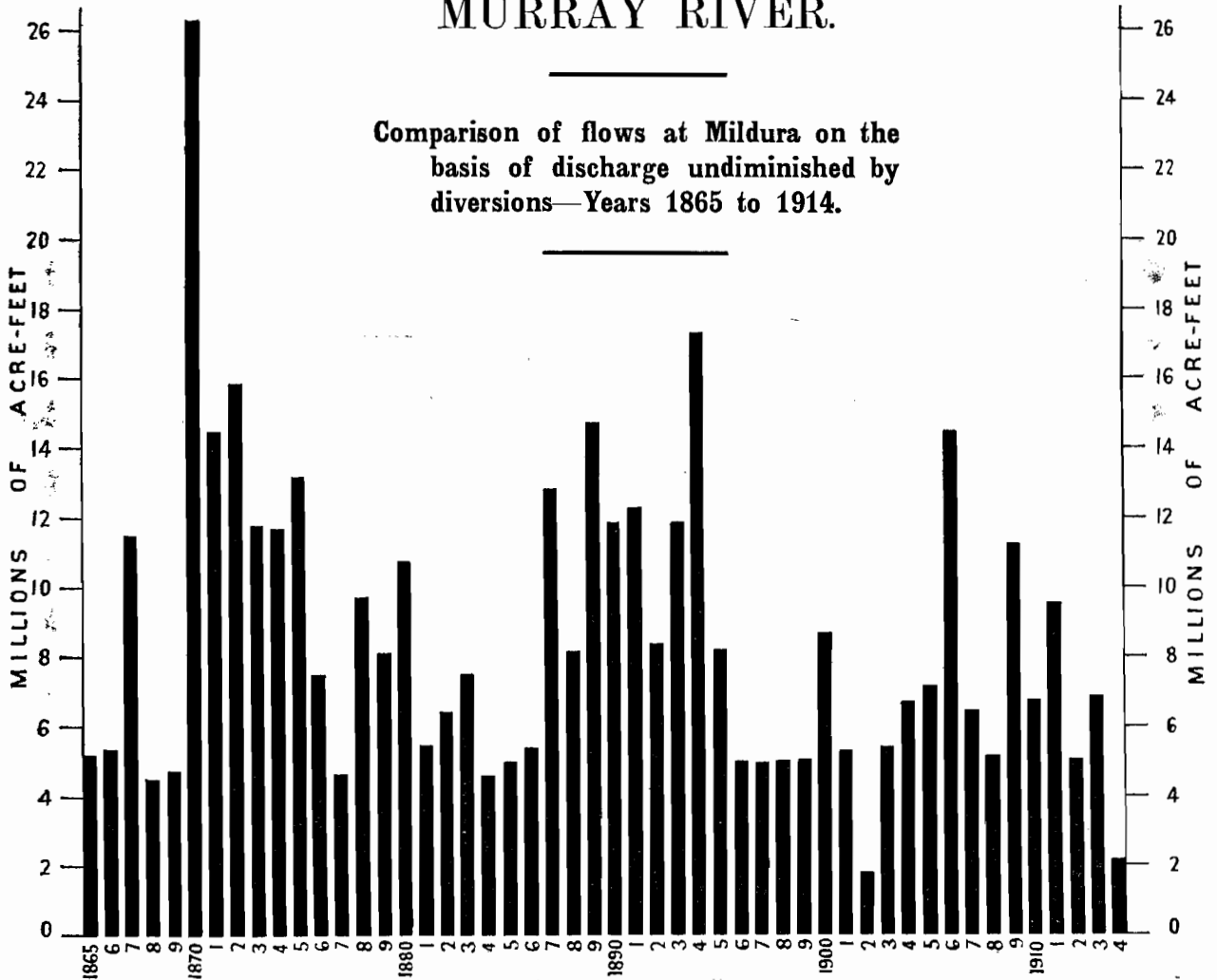
The remaining 12,000 acres in the Stanhope Estate, which are being channelled, and some 3,000 acres in other unsubdivided estates, will be made available as required.

STORAGE DIAGRAM.



MURRAY RIVER.

Comparison of flows at Mildura on the basis of discharge undiminished by diversions—Years 1865 to 1914.



ADMINISTRATION.

AMALGAMATION OF DISTRICTS.

The Gannawarra and Gannawarra West Districts have been united, so as to form one district, to be known as Gannawarra Irrigation and Water Supply District.

EXTENSIONS AND EXCISIONS.

The Rochester Irrigation District has, as previously arranged, been extended by the addition of some 36,000 acres between Bamawm and Echuca, of which some 6,000 acres are being supplied with water for irrigation. This area includes the Echuca and McCumisky's Irrigated Closer Settlement Estates, comprising twenty-six holdings, with an aggregate area of 2,800 acres. It is intended to further extend this district next year by the inclusion of 10,000 acres at Tennyson, for which irrigation channels have already been constructed.

It is also proposed to extend the Swan Hill Irrigation District by adding to it the closer settlement estate known as Burton's (1,400 acres) and other contiguous lands, about 4,000 acres in all.

A small addition is also to be made to the Dingee Irrigation District.

The Tyntynder Waterworks District has been extended by the addition of an area of 112 square miles not previously included in any constituted district.

To the Tyrrell District there has been added an area of 19 square miles, excised from Karkaroc District, and also other lands, aggregating 62 square miles, not previously included in any waterworks district.

An area of 18 square miles was excised from the waterworks district of the Kerang Shire Waterworks Trust, and added to the Long Lake Waterworks District.

It is intended during the ensuing year to re-adjust the boundaries of the Wimmera-Mallee Waterworks Districts. This will involve the excision of portions of the waterworks districts of the Shire of Donald and Kerang Shire Waterworks Trusts, and also of Long Lake, Sea Lake, Tyntynder, and Tyrrell Waterworks Districts, and extensions of Birchip, Karkaroc, Long Lake, Tyntynder, Wimmera United, and Wycheproof Districts.

PROCLAMATION OF URBAN DISTRICTS.

The townships of Kaneira, Nyah and Werribee, having been provided with pipe supplies, were proclaimed urban districts and rated during the year.

The reticulation of the township of Lascelles will be completed during the ensuing year.

NEW APPOINTMENTS AND TRANSFERS.

Mr. G. C. Kreutzer, previously engaged on the Commission's closer settlement work in various districts, was appointed District Engineer at Rochester Centre, in place of Mr. G. B. Gibbs, who was transferred to Head Office. Mr. R. C. Benson, who had been assisting the Rodney District Engineer for some time, was appointed Resident Engineer at Werribee. Mr. W. J. Stover, who had been employed by the Commission as irrigation adviser at Shepparton, resigned early in the year. In addition several temporary transfers were necessitated by enlistment of officers for active service. As far as practicable the vacancies caused by officers enlisting are being filled without resort to fresh appointments.

FIRE INSURANCE.

As previously stated, the Commission has been carrying the fire risks on its own buildings since July, 1909. The premiums thus saved now amount to £1,200. No losses have occurred since the date named.

RECEIPTS, DISBURSEMENTS, AND ESTIMATES.

The total revenue of the Commission for the year was £172,037, a decrease of £22,820 on the amount received for 1913-14. Of this decrease no less than £15,618 is in Waterworks Districts, where the effects of the drought were very severely felt. Notwithstanding the fact that the compulsory irrigation charge was withdrawn for the drought year in the Irrigation Districts, and that in its place a system of charging for the water actually used for irrigation was substituted, the revenue in these districts shows a decrease of only £4,947. It is anticipated that not only will a large amount of these arrears be collected during the coming year, but that a considerable increase will be shown in the collections generally.

The Coliban District shows a decrease of £2,338 in revenue as compared with last year, while the net expenditure increased £897. This result is almost entirely due to the shortage of the water supply and the consequent decrease in revenue from the irrigation, manufacturing, and mining industries. The annual deficit in connexion with this system, which reached £21,035 in 1913-14, and £24,693 last year, can only be overtaken slowly, as the amount of rating is limited by the *Water Act* 1915.

The revenue from the Irrigation and Water Supply Districts shows, as previously stated, a decrease of £4,947, as against last year. The aggregate revenue deficit of all the Irrigation and Water Supply Districts is now £120,520, but this includes a new amount, not previously charged to the districts, of £4,480 for the interest on and maintenance of portions of the Goulburn Main Channel System. The large increase of £40,823 in the aggregate deficit is almost entirely due to the unprecedented shortage in the river flows, resulting from the drought, which necessitated a very large additional expenditure in the provision of temporary pumping plants to utilize, as previously indicated, all available (and frequently intermittent) supplies of water. The cost of this extra pumping will be repaid during the next few years.

In the thirty-six Waterworks Districts under the control of the Commission the revenue returns, exclusive of the Coliban District, were, until the beginning of this year, very satisfactory, the net deficit, which in 1908-9 was £19,274, having been reduced to £11,494 in 1913-14. Although this deficit has this year been increased to £36,955, the Commission feels that, with the return of normal seasons, the collection of outstanding arrears will be such that the financial position of these districts will be restored to the satisfactory state of last year.

The net expenditure for the year from annual votes was £130,508, which was an increase of £22,997 over that of last year, and was almost entirely caused by drought conditions. The expenditure of loan moneys amounted to £261,156, of which details are set out in this report.

The Estimates for 1915-16 show an increase of £33,000 in receipts as compared with the previous year's Estimates, while the estimated disbursements show a decrease of £4,200 over those for last year. This satisfactory estimate is based on the anticipation of improved conditions following the termination of the drought.

The present total interest charges on loans amount to £285,847. Of this amount £97,721 is not chargeable to any districts, being debitable against Free Headworks, Amounts Written Off, and Unexpended Balances, leaving £188,126 as debitable against the Commission and other Authorities. The amount available last year from the Revenues of the Commission and other Authorities to meet such interest was £91,208, as set out in the statement in the final table, which, as in last year, shows the actual amount available to meet interest instead of an estimated amount as in Reports prior to last year.

The loan liability of the State for Works of Water Supply at the close of the year was £8,435,396. Of this total £1,235,109 is for Free Headworks; £1,263,228 has been written off; £147,046 was advanced to some early-formed local Authorities; £160,555 has not been expended, and £232,716 has been paid off by Authorities. The balance, £5,396,742, 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, 1915.

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	36,728	13,113	626	12,487	24,241	
Other State Works—						
Broken River	7	339	..	339	..	332
Goulburn	193	1,991	..	1,991	..	1,798
Kow Swamp	173	1,410	..	1,410	..	1,237
Lake Lonsdale	38	546	..	546	..	508
Loddon River	7	273	..	273	..	266
Lower Wimmera .. .. .	..	84	..	84	..	84
North-West Lakes	326	176	..	176	150	
Irrigation Districts	83,404	62,085	..	62,085	21,319	
Waterworks Districts—						
Rural	31,373	31,427	371	31,056	317	
Urban	12,719	3,969	..	3,969	8,750	
Licences, Diversions, Miscellaneous	7,069	2,951	..	2,951	4,118	
	172,037	118,364	997	117,367	58,895	4,225
Not Revenue Producing—						
River Gaugings, Surveys and Reports, New Projects .. .. .	..	4,844	..	4,844	..	4,844
Irrigation Engineering Scholar- ships .. .. .	..	204	..	204	..	204
Waterworks Trusts, } Cost Boring for Water, } of Road Clearing, } Admin- Mallee, and Land } istration Settlement .. .. .	..	4,870	..	4,870	..	4,870
Loan Works .. .. .	..	3,223	..	3,223	..	3,223
Totals	172,037	131,505	997	130,508	58,895	17,366

COLIBAN SYSTEM.

STATEMENT of Moneys received and disbursed during the year ended 30th June, 1915,
and of interest charged at the rate of 4 per cent. on Capital Debts.

Districts.	Capital Debit at 30th June, 1915.	Revenue.	Disbursements and Interest Charged.			Exces. Disbursements and Interest over Revenue.
			Disbursements.	Interest.	* Total.	
	£	£	£	£	£	£
Coliban	1,207,191	35,941	11,753	48,288	60,041	24,100
Axe Creek	1,750	147	129	70	199	52
Harcourt	14,392	640	605	576	1,181	541
Totals	1,223,333	36,728	12,487	48,934	61,421	24,693

IRRIGATION AND WATER SUPPLY DISTRICTS.

STATEMENT of Moneys received and disbursed from 1st May, 1906, to 30th June, 1915; and of Interest, charged at the rate of 4 per cent. on Capital Debts; and also of Depreciation and Redemption charged, as at 30th June, 1915. (Free Head-works excluded.)

RECEIPTS.

District.	1st May, 1906, to 30th June, 1914.	1914-15.					Grand Total at 30th June, 1915.
		Rates.	Compulsory Irrigation Charge.	Water Sales.	Interest, Miscellaneous.	Total.	
	£	£	£	£	£	£	£
1. Bacchus Marsh	12,059	531	2,804	85	33	3,453	15,512
2. Boort	16,581	1,207	..	367	12	1,586	18,167
3. Campaspe	4,826	601	..	57	1	659	5,485
4. Cohuna	41,853	1,402	3,686	1,544	188	6,820	48,673
5. Deakin	22,389	3,046	..	1,341	14	4,401	26,790
6. Dingee	452	67	297	88	3	455	907
7. Dry Lake	260	..	..	..	29	29	289
8. Gannawarra	27,444	1,061	3,085	1,968	150	6,264	33,708
9. Kerang	32,495	1,833	..	1,388	12	3,233	35,728
10. Koondrook	25,864	910	2,196	1,530	52	4,688	30,552
11. Merbein	14,945	176	8,104	8	427	8,715	23,660
12. Nyah	6,983	65	1,476	80	49	1,670	8,653
13. Rochester	13,773	1,188	2,195	3,206	180	6,769	20,542
14. Rodney	113,337	6,334	5,313	6,882	251	18,780	132,117
15. Shepparton	5,683	632	1,232	538	47	2,449	8,132
16. Swan Hill	21,317	614	2,086	1,484	89	4,273	25,590
17. Tongala	5,972	434	1,234	744	58	2,470	8,442
18. Tragowel Plains	42,115	1,383	4,713	507	87	6,690	48,805
	408,348	21,484	38,421	21,817	1,682	83,404	491,752

DISBURSEMENTS, AND INTEREST DEPRECIATION AND REDEMPTION CHARGED.

District.	DISBURSEMENTS.					INTEREST CHARGED.			(A) DEPRECIATION. (B) REDEMPTION.	Grand Total at 30th June, 1915.	
	1st May, 1906, to 30th June, 1914.	1914-15.				Total at 30th June, 1915.	1st May, 1906, to 30th June, 1914.	1st July, 1914, to 30th June, 1915.			Total at 30th June, 1915.
		Repairs and Maintenance.	Distribution of Water.	Management.	Total.						
	£	£	£	£	£	£	£	£	£	£	
1. Bacchus Marsh	2,870	221	498	116	835	3,705	8,765	3,333	12,098	..	15,803
2. Boort	9,656	722	658	115	1,495	11,151	6,143	763	6,906	..	18,057
3. Campaspe	2,896	71	164	80	315	3,211	3,133	389	3,522	..	6,733
4. Cohuna	30,874	1,052	5,559	465	7,076	37,950	16,415	2,716	19,131	(A)4,998	62,079
5. Deakin	11,334	932	918	341	2,191	13,525	16,560	3,211	19,771	..	33,296
6. Dingee	94	54	290	20	364	458	490	1,091	1,581	..	2,039
7. Dry Lake	1	..	..	..	..	1	259	29	288	..	289
8. Gannawarra	18,766	738	2,904	282	3,924	22,690	11,234	1,865	13,099	(A)2,246	38,035
9. Kerang	18,156	1,321	789	297	2,407	20,563	13,531	1,914	15,445	(B) 500	36,508
10. Koondrook	17,419	535	2,825	358	3,718	21,137	14,196	2,893	17,089	(A)2,251	40,477
11. Merbein	14,886	142	5,670	491	6,303	21,189	6,109	2,639	8,748	(A)3,354	33,291
12. Nyah	5,653	179	2,928	234	3,341	8,994	3,036	893	3,929	(A)1,642	14,565
13. Rochester	9,279	1,235	5,117	571	6,923	16,202	18,401	7,325	25,726	..	41,928
14. Rodney	54,281	3,593	4,062	742	8,397	62,678	67,510	12,987	80,497	..	143,175
15. Shepparton	4,286	1,599	826	260	2,685	6,971	5,674	4,077	9,751	..	16,722
16. Swan Hill	18,956	781	1,500	219	2,500	21,456	5,995	1,312	7,307	(A)2,368	31,131
17. Tongala	4,577	964	3,282	337	4,583	9,160	8,797	5,041	13,838	..	22,998
18. Tragowel Plains	22,334	1,668	3,075	285	5,028	27,362	21,403	6,381	27,784	..	55,146
	246,318	15,807	41,065	5,213	62,085	308,403	227,651	58,859	286,510	17,359	612,272

WATERWORKS DISTRICTS.

RURAL DISTRICTS.

STATEMENT of Moneys received and disbursed from 1st July, 1906, to 30th June, 1915; and of Interest charged, at the rate of 4 per cent. on Capital Debts; and also of Depreciation and Redemption charged, as at 30th June, 1915. (Free Head-works excluded.)

RECEIPTS.

District.	1st May, 1906, to 30th June, 1914.	1914-15.				Grand Total at 30th June, 1915.
		Rate.	Water Sales.	Interest and Miscellaneous.	Total.	
	£	£	£	£	£	£
1. Birchip	57,783	1,526	..	35	1,561	64,975
2. Sea Lake		2,390	..	74	2,464	
3. Tyrrell		738	..	8	746	
4. Wycheproof		2,382	..	39	2,421	
5. Karkaroo	19,617	3,574	..	3,641	23,258	
6. Kerang North-west Lakes	41	..	..	..	41	
7. Long Lake	30,772	1,926	82	32	2,040	32,812
8. Tyntynder	4,878	706	..	11	717	5,595
9. Walpeup East	183	56	..	1	57	240
10. Walpeup West	220	80	..	1	81	301
11. Western Wimmera	56,410	7,460	574	48	8,082	64,492
12. Wimmera United	68,433	9,390	91	82	9,563	77,996
	238,337	30,228	747	398	31,373	269,710

DISBURSEMENTS, AND INTEREST DEPRECIATION AND REDEMPTION CHARGED.

District.	DISBURSEMENTS.						INTEREST CHARGED.			(A) DEPRECIATION. (B) REDEMPTION.	Grand Total at 30th June, 1915.
	1st May, 1906, to 30th June, 1914.	1914-15.				Total at 30th June, 1915.	1st May, 1906, to 30th June, 1914.	1st July, 1914, to 30th June, 1915.	Total at 30th June, 1915.		
		Repairs and Maintenance.	Distribution of Water.	Management.	Total.						
	£	£	£	£	£	£	£	£	£	£	£
1. Birchip	35,768	3,528	1,315	706	5,549	41,317	35,059	8,071	43,130	..	84,447
2. Sea Lake											
3. Tyrrell											
4. Wycheproof											
5. Karkaroo	7,385	1,444	715	305	2,464	9,849	11,598	4,263	15,861	..	25,710
6. Kerang North-west Lakes	120	..	73	33	106	226	67	84	151	..	377
7. Long Lake	21,090	1,762	2,958	478	5,198	26,288	7,217	752	7,969	(a) 4,872	39,129
8. Tyntynder	4,254	854	1,244	176	2,274	6,528	1,801	746	2,547	..	9,075
9. Walpeup East	212	186	..	119	305	517	120	136	256	..	773
10. Walpeup West	490	270	253	150	673	1,163	60	93	153	(a) 300	1,616
11. Western Wimmera	29,567	3,358	3,100	819	7,277	36,844	19,506	3,497	23,003	(a) 1,522	66,869
										(b) 5,500	
12. Wimmera United	33,853	4,655	1,697	858	7,210	41,063	27,789	7,009	34,798	(b) 5,000	80,861
	132,739	16,057	11,355	3,644	31,056	163,795	103,217	24,651	127,868	17,194	308,857

WATERWORKS DISTRICTS.

URBAN DISTRICTS.

STATEMENT of Moneys received and disbursed from 1st July, 1906, to 30th June, 1915; and of Interest charged, at the rate of 4 per cent. on Capital Debts; and also of Depreciation and Redemption charged, as at 30th June, 1915. (Free Head-works excluded.)

RECEIPTS.

District.	1st May, 1906, to 30th June, 1914.	1914-15.				Grand Total at 30th June, 1915.
		Rate.	Water Sales.	Interest and Miscellaneuous.	Total.	
	£	£	£	£	£	£
1. Bacchus Marsh	5,762	543	295	4	842	6,604
2. Berriwillock	45	78	..	1	79	124
3. Beulah	779	277	23	6	306	1,085
4. Birchip	3,920	510	240	27	777	4,697
5. Cohuna	304	379	..	..	379	683
6. Corop	60	31	..	1	32	92
7. Dimboola	8,099	478	852	24	1,354	9,453
8. Hopetoun	896	279	58	10	347	1,243
9. Jeparit	925	352	59	4	415	1,340
10. Kaneira .. .. .	..	70	18	1	89	89
11. Koondrook	548	322	..	3	325	873
12. Lake Boga	903	184	6	4	194	1,097
13. Minyip	2,193	336	46	11	393	2,586
14. Natimuk	2,598	184	197	1	382	2,980
15. Nyah .. .. .	..	26	..	..	26	26
16. Rainbow	3,202	522	107	6	635	3,837
17. Rupanyup	2,054	245	101	6	352	2,406
18. Sea Lake	1,886	286	36	23	345	2,231
19. Ultima	158	219	..	11	230	388
20. Watchem	91	136	5	2	143	234
21. Werribee .. .. .	..	154	..	2	156	156
22. Wonthaggi	11,072	1,991	1,941	113	4,045	15,117
23. Woomelang	748	268	159	6	433	1,181
24. Wycheproof	2,325	365	53	22	440	2,765
	48,568	8,235	4,196	288	12,719	61,287

DISBURSEMENTS, AND INTEREST DEPRECIATION AND REDEMPTION CHARGED.

District.	DISBURSEMENTS.					INTEREST CHARGED.				(A) DEPRECIATION. (B) REDEMPTION.		Grand Total at 30th June, 1915.
	1st May, 1906, to 30th June, 1914.	1914-15.			Total at 30th June, 1915.	1st May, 1906, to 30th June, 1914.	1st July, 1914, to 30th June, 1915.	Total at 30th June, 1915.	(A) DEPRECIATION.	(B) REDEMPTION.		
		Repairs and Maintenance.	Distribution of Water.	Management.							Total.	
	£	£	£	£	£	£	£	£	£	£	£	
1. Bacchus Marsh	2,004	8	126	70	204	2,208	2,742	675	3,417	(a) 168 (b) 250	6,043	
2. Berriwillock	11	32	..	13	45	56	64	71	135	(a) 3	194	
3. Beulah	185	14	114	31	159	344	504	278	782	(a) 8	1,134	
4. Birchip	1,484	41	219	65	325	1,809	1,872	422	2,294	(a) 164	4,267	
5. Cohuna	97	3	63	9	75	172	137	142	279	(a) 42	493	
6. Corop	15	..	10	5	15	30	38	19	57	..	87	
7. Dimboola	4,545	516	428	110	1,054	5,599	1,717	432	2,149	(a) 780 (b) 530	9,058	
8. Hopetoun	429	3	138	34	175	604	373	176	549	..	1,153	
9. Jeparit	160	1	55	22	78	238	668	385	1,053	..	1,291	
10. Kaneira .. .. .	..	3	30	12	45	45	..	90	90	(a) 3	138
11. Koondrook	270	5	105	35	145	415	293	149	442	(a) 45	902	
12. Lake Boga	108	2	15	11	28	136	618	151	769	(a) 36	941	
13. Minyip	1,075	19	80	32	131	1,206	1,443	311	1,754	(a) 155	3,115	
14. Natimuk	370	1	46	25	72	442	1,342	356	1,698	(b) 500	2,640	
15. Nyah .. .. .	..	..	5	5	10	10	..	5	5	(a) 4	19
16. Rainbow	702	2	80	34	116	818	2,021	465	2,486	(a) 240	3,544	
17. Rupanyup	837	10	75	29	114	951	1,063	237	1,300	(a) 126	2,377	
18. Sea Lake	1,391	5	142	43	190	1,581	467	176	643	(a) 159	2,383	
19. Ultima	41	11	33	16	60	101	157	157	314	(a) 20	435	
20. Watchem	28	12	12	18	42	70	128	128	256	..	326	
21. Werribee .. .. .	..	13	47	33	93	93	..	321	321	(a) 21	435
22. Wonthaggi	1,342	56	182	210	448	1,790	8,187	2,461	10,648	(b) 1,000	13,438	
23. Woomelang	284	27	69	44	140	424	578	346	924	(a) 40	1,388	
24. Wycheproof	1,669	3	164	38	205	1,874	1,039	223	1,262	(a) 158	3,294	
	17,047	787	2,238	944	3,969	21,016	25,451	8,176	33,627	4,452	59,095	

DISTRICTS HELD IN TRUST BY THE COMMISSION.

AVOCA WATER TRUST.—BALANCE-SHEET.

STATEMENT OF RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDED 31ST DECEMBER, 1914.

		<i>Revenue Account.</i>											
RECEIPTS.				DISBURSEMENTS.									
				£	s.	d.							
Bank Balances from 1913	847	1	4	Interest on Loan	..	..	..	329	6	3
Arrears of Rates	86	11	1	Redemption of Loan	..	..	..	68	12	0
Current Rate	352	13	10	Surveys New Channel System	..	..	..	75	18	6
Interest on Rates	8	12	1	Maintenance and Repairs	..	..	..	163	11	7
Sales of Water	1	2	0	Management	..	..	..	34	16	6
Miscellaneous	2	8	5	Rate Collector	..	..	..	52	0	0
							Advance to Urban District	..	..	..	10	4	11
							Refund, Overpaid Rates	..	..	..	0	6	5
							Bank Charges	..	..	..	2	1	6
							Bank Balances, 31/12/14	..	..	..	461	11	1
Total	£1,298	8	9	Total	..	..	..	£1,298	8	9

Statement of Assets and Liabilities.

LIABILITIES.				ASSETS.										
				£	s.	d.	£	s.	d.	£	s.	d.		
Treasurer of Victoria—Loan	..	..	..	5,430	6	4	Works at Cost	..	..	8,709	5	0
Rates Overpaid	..	..	..	0	3	11	Less Amount					
Sundry Creditors	..	..	..	1	18	5	Written Off,					
Balance—General Account	..	..	..	1,576	9	11	Act No.					
							1625	..	2,494	0	0			
							Repayment of							
							Loan	..	124	5	6			
										2,618	5	6		
												6,090	19	6
							Arrears of Rates	346	3	1	
							Advance to Urban Division	110	4	11	
							Bank Balances, 31/12/14	461	11	1	
Total	£7,008	18	7	Total	£7,008	18	7	

Statement of Rates.

				£	s.	d.							
Current Rate	561	14	3	Current Rates Collected	..	..	..	352	13	10
Arrears from 1913	223	13	9	Arrears of Rates Collected	..	..	..	86	11	1
							Arrears carried forward to 1915	..	..	..	346	3	1
Total	£785	8	0	Total	..	..	..	£785	8	0

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

AVOCA WATER TRUST.—QUAMBATOOK URBAN DISTRICT.—BALANCE-SHEET.

STATEMENT OF RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDED 31ST DECEMBER, 1914.

Revenue Account.

RECEIPTS.			DISBURSEMENTS.		
	£	s. d.		£	s. d.
Bank Balance from 1913	15	14 3	Interest on Loan	131	0 0
Arrears of Rates	51	15 9	Redemption of Loan	17	3 2
Current Rate	124	1 4	Maintenance and Repairs	13	3 6
Interest on Rates	2	1 2	Pumping Expenses	66	11 0
Advance by Rural District	110	4 11	Rate Collector	26	0 0
			Management	16	11 9
			Bank Charges	2	7 0
			Bank Balance, 31/12/14	31	1 0
Total	£303	17 5		£303	17 5

Loan Account.

RECEIPTS.			DISBURSEMENTS.		
	£	s. d.		£	s. d.
Treasurer of Victoria	322	18 7	Earthen Storage	26	16 5
			Concrete Standpipe	4	16 5
			Reticulation	204	3 0
			Windmills	21	19 2
			Pumping Plant	64	8 3
			Contingencies	0	15 4
Total	£322	18 7	Total	£322	18 7

Statement of Assets and Liabilities.

LIABILITIES.			ASSETS.		
	£	s. d.		£	s. d.
Treasurer of Victoria—Loan ..	3,705	5 1	Works at Cost—		
Treasurer of Victoria—Interest ..	74	6 10	Earthen Storage ..	£1,003	1 10
Amount due to Rural Districts ..	110	4 11	Concrete Standpipe ..	752	8 4
Balance—General Account ..	172	0 0	Reticulation ..	1,389	10 1
			Windmills ..	323	4 6
			Pumping Plant ..	212	15 0
			Contingencies ..	44	7 11
					3,725 7 8
			Arrears of Rates	305	8 2
			Bank Balance, 31/12/14	31	1 0
Total	£4,061	16 10	Total	£4,061	16 10

Statement of Rates.

	£	s. d.		£	s. d.
Current Rate	354	3 0	Current Rate Collected	124	1 4
Arrears from 1913	127	2 3	Arrears of Rates Collected	51	15 9
			Arrears carried forward to 1915	305	8 2
Total	£481	5 3	Total	£481	5 3

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

CARRUM WATERWORKS TRUST.—BALANCE-SHEET.

STATEMENT OF RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDED 31ST DECEMBER, 1914.

Revenue Account.

RECEIPTS.			DISBURSEMENTS.			
	£	s. d.	£	s. d.	£	s. d.
Bank Balance from 1913	611	14 8			Interest on Loan	662 4 10
Cash in hand from 1913	19	12 8			Redemption of Loan	145 10 2
			631	7 4	Maintenance and Repairs	734 2 8
Arrears of Rates	..	..	206	12 10	Rate Collector	87 15 0
Current Rate	..	..	1,327	5 6	Management	64 18 2
Interest on Rates	..	..	23	15 0	Bank Charges	1 15 0
Interest on Flood Protection Fund	..	..	22	10 0	Cash in hand	0 18 2
Miscellaneous	..	..	8	10 0	Bank Balance, 31/12/1914	522 16 8
						523 14 10
Total	..	..	£2,220	0 8	Total	£2,220 0 8

Special Works Account.

RECEIPTS.			DISBURSEMENTS.			
	£	s. d.	£	s. d.	£	s. d.
Bank Balance from 1913	64	13 6	Bank Charges	0 10 6
Arrears of Rates	13	6 9	Bank Balance, 31/12/1914	77 9 9
Total	£78	0 3	Total	£78 0 3

Statement of Assets and Liabilities.

LIABILITIES.			ASSETS.				
	£	s. d.	£	s. d.	£	s. d.	
Treasurer of Victoria—Loan	..	16,446 0 8	Works at Cost	..	25,732 9 6		
Overpaid Rates	..	3 6 6	Less Amount Written Off	7,732 0 0			
Balance, General Account	..	3,318 12 4			18,000 9 6		
			Arrears of Rates	..	493 15 2		
			Flood Protection Fund—				
			Government Stock	..	750 0 0		
			Cash in hand	..	0 18 2		
			Bank Balance, 31/12/1914	522 16 8			
					523 14 10		
Total	..	£19,767 19 6	Total	..	£19,767 19 6		
Special Works—			Special Works—	£	s. d.	£	s. d.
Balance of Works to be carried out	1,074	15 0	Amount of Special Rate	8,144	15 6		
			Less Amount Received	8,047	17 9		
						96 17 9	
			Balance in Trust Fund, Treasury	..	900 7 6		
			Bank Balance, 31/12/1914	..	77 9 9		
Total	..	£1,074 15 0	Total	..	£1,074 15 0		

Statement of Rates.

	£	s. d.		£	s. d.
Current Rate	..	1,600 16 10	Current Rate Collected	..	1,327 5 6
Arrears of Rates from 1913	..	461 15 10	Arrears of Rates Collected	..	206 12 10
			Rates Written Off	..	34 19 2
			Arrears carried forward to 1915	..	493 15 2
Total	..	£2,062 12 8	Total	..	£2,062 12 8

Special Works Rate.

	£	s. d.		£	s. d.
Arrears from 1913	..	110 4 6	Amount Collected in 1914	..	13 6 9
			Arrears carried forward to 1915	..	96 17 9
Total	..	110 4 6	Total	..	110 4 6

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

LODDON UNITED WATERWORKS TRUST.—BALANCE-SHEET.

STATEMENT OF RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDED 31ST DECEMBER, 1914.

Revenue Account.

RECEIPTS.				DISBURSEMENTS.								
				£	s.	d.	£	s.	d.			
Bank Balance from 1913	1,274	1	4	Interest on Loan	..	..	711	14	9
Arrears of Rates	130	5	0	Redemption of Loan	..	..	164	5	7
Current Rate	1,674	2	7	Maintenance and Repairs	..	..	1,002	13	11
Interest on Rates	5	5	11	Water Distribution	..	..	245	5	11
Sales of Water	38	17	6	Valuation of District	..	..	85	17	4
Rates Overpaid	6	8	4	Management	..	..	87	5	4
Miscellaneous	2	4	6	Bank Balance, 31/12/14	..	..	834	2	4
Total	£3,131	5	2	Total	..	..	£3,131	5	2

Statement of Assets and Liabilities.

LIABILITIES.				ASSETS.								
				£	s.	d.	£	s.	d.			
Treasurer of Victoria—Loan	17,819	18	8	Works at Cost	..	..	19,617	4	9
Overpaid Rates	14	7	11	Arrears of Rates	..	..	488	5	8
Balance, General Account	3,124	7	2	Sales of Water	..	..	19	1	0
							Bank Balance, 31/12/14	..	..	834	2	4
Total	£20,958	13	9	Total	..	..	£20,958	13	9

Statement of Rate.

				£	s.	d.						
Current Rate	2,013	9	1	Current Rate Collected	..	..	1,674	2	7
Arrears from 1913	279	4	2	Arrears of Rates Collected	..	..	130	5	0
							Arrears carried forward to 1915	..	..	488	5	8
Total	£2,292	13	3	Total	..	..	£2,292	13	3

LOAN EXPENDITURE.

STATEMENT OF LOAN EXPENDITURE DURING THE YEAR ENDED 30TH JUNE, 1915.

Name.	Loans Application Act No. 2503.			Loans Application Act No. 2534 and other Advances.			Total.		
	£	s.	d.	£	s.	d.	£	s.	d.
<i>Free Headworks.</i>									
1. Goulburn River Works (Waranga Reservoir)	196	3	5	1,227	0	5	1,423	3	10
2. Kow Swamp	2	19	6	..	..	..	2	19	6
3. Loddon River (Laanecoorie)	6	11	3	12	14	0	19	5	3
<i>Waterworks Districts.</i>									
4. Birchip, Sea Lake, Tyrrell, and Wycheproof	1,167	11	0	15,476	11	1	16,644	2	1
5. Carwarp	4	14	0	4,288	4	2	4,292	18	2
6. Karkaroc	805	13	3	7,309	7	10	8,115	1	1
7. Kerang North-West Lakes	299	15	5	139	11	2	439	6	7
8. Long Lake	10	1	3	1,098	18	7	1,108	19	10
9. Tyntynder	672	14	7	8,286	18	0	8,959	12	7
10. Walpeup East	15	10	1	386	0	3	401	10	4
11. Walpeup West	88	3	8	721	11	6	809	15	2
12. Western Wimmera	40	12	9	1,817	9	6	1,858	2	3
13. Wimmera United	657	7	8	3,460	6	10	4,117	14	6
14. Wimmera Main Channels and Storages	2,922	5	4	46,287	7	5	49,209	12	9
15. Yelta	3	12	0	27	10	2	31	2	2
<i>Towns.</i>									
16. Bacchus Marsh	1	0	0	5	8	0	6	8	0
17. Berriwillock	1	6	6	21	10	1	22	16	7
18. Beulah	59	13	10	110	12	11	170	6	9
19. Birchip .. .. .	..	..	..	32	10	10	32	10	10
20. Boga .. .. .	..	..	..	4	17	11	4	17	11
21. Cohuna .. .. .	..	..	..	119	16	11	119	16	11
22. Coliban	28	11	0	9,904	12	4	9,933	3	4
23. Hopetoun	1	2	6	5	10	2	6	12	8
24. Jeparit .. .. .	..	..	..	18	0	3	18	0	3
25. Kaneira	1	10	5	11	9	4	12	19	9
26. Koondrook .. .. .	..	..	..	71	0	4	71	0	4
27. Lascelles	2	0	0	1,204	19	0	1,206	19	0
28. Nyah .. .. .	..	..	..	4	5	4	4	5	4
29. Minyip .. .. .	..	..	..	3	3	9	3	3	9
30. Ouyen .. .. .	..	..	..	1,062	3	0	1,062	3	0
31. Rainbow	19	2	7	12	5	2	31	7	9
32. Rupanyup	0	0	3	41	8	6	41	8	9
33. Sea Lake	114	13	1	1,852	12	6	1,967	5	7
34. Ultima	2	11	9	5	17	8	8	9	5
35. Watchem .. .. .	..	..	..	10	3	8	10	3	8
36. Werribee	2	6	0	156	13	1	158	19	1
37. Wonthaggi .. .. .	..	..	..	281	18	0	281	18	0
38. Woomelang	5	11	6	38	14	8	44	6	2
39. Wycheproof .. .. .	..	..	..	3	19	0	3	19	0
<i>Irrigation and Water Supply Districts.</i>									
40. Bacchus Marsh and Werribee	2,240	14	11	25,772	18	6	28,013	13	5
41. Boga .. .. .	..	..	..	5,332	8	0	5,332	8	0
42. Boort	71	12	6	120	18	1	192	10	7
43. Campaspe	101	17	9	499	11	10	601	9	7
44. Cohuna	372	7	1	4,187	19	6	4,560	6	7
45. Deakin	6	10	8	..	..	..	6	10	8
46. Dingo	84	4	1	1,945	9	10	2,029	13	11
47. Gannawarra	123	10	7	3,016	10	4	3,140	0	11
48. Kerang	0	16	6	8,146	15	10	8,147	12	4
49. Koondrook	84	1	8	1,671	18	8	1,756	0	4
50. Merbein	554	17	11	13,933	7	10	14,488	5	9
51. Nyah	91	15	9	566	2	2	657	17	11
52. Rochester	763	17	6	11,110	1	9	11,873	19	3
53. Rodney	456	0	8	5,157	5	10	5,613	6	6
54. Shepparton	101	0	9	3,507	14	2	3,608	14	11
55. Swan Hill	126	10	11	1,397	6	10	1,523	17	9
56. Tragowel Plains	266	19	7	5,330	2	2	5,597	1	9
57. Tongala	106	9	11	1,407	15	6	1,514	5	5
58. Goulburn Main Channels and Distributaries	776	16	7	13,321	1	6	14,097	18	1
59. Goulburn Storages (Sugarloaf Reservoir) .. ..	..	..	..	24,024	16	7	24,024	16	7
60. Waranga Enlargement .. .. .	..	..	..	7,866	17	8	7,866	17	8
<i>Miscellaneous.</i>									
61. Avon, Latrobe, and Macalister Rivers .. .. .	..	..	..	496	1	11	496	1	11
62. Goulburn Levees	13	16	1	40	1	6	53	17	7
63. Koo-wee-rup Drainage .. .. .	..	..	..	494	4	9	494	4	9
64. Murray River—Surveys Narrung and Millewa	261	5	3	1,272	4	3	1,533	9	6
65. Murray River—Torrumbarry Weir	39	3	11	0	4	9	39	8	8
66. Upper Murray Storage Sites Surveys .. .. .	..	..	..	1,234	16	10	1,234	16	10
Total	13,777	15	2	247,377	19	11	261,155	15	1

STATEMENT OF EXPENDITURE DURING THE YEAR ENDED 30TH JUNE, 1915,

IN CONNEXION WITH

BORING FOR WATER, CONSTRUCTION OF TANKS, FORMING ROADS, AND ROLLING MALLEE SCRUB.

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

	£	s.	d.
1. Boring for Water	2,108	0	2
2. Mallee Tanks (Public Tanks)	6,223	3	1
3. Forming Roads	10,778	7	2
4. Rolling Mallee in Disputed Territory	4,257	19	0
Total	£23,367	9	5

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, 1916, and Estimate of the total amount available from the Revenues of all Authorities to meet interest payable by the State for the year ending 30th June, 1916.

ESTIMATED DISBURSEMENTS.

A.			
Revenue Producing Works—			
Coliban District	£10,750		
Irrigation and Water Supply Districts	47,300		
Waterworks Districts	33,925		
Drainage and Flood Protection Districts	100		
General Expenditure and Salaries (proportion) over £250 to be apportioned to above Districts	13,850		
	£105,925		
B.			
Non-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.. .. .	£7,000		
Inter-State Conference on Murray Waters	100		
Irrigation Engineering Scholarships	300		
Loan Works, Services on Account defrayed from Votes	4,000		
Waterworks Trusts Administration	1,600		
	£13,000		
C.			
Non-Revenue Producing Works—			
Free Headworks—			
Broken River	£250		
Goulburn-Waranga	1,850		
Kow Swamp	1,700		
Loddon River	275		
Lake Lonsdale	400		
Lower Wimmera	125		
North-west Lakes	275		
	£4,875		
			£123,800
ESTIMATED RECEIPTS.			
Coliban District	£38,000		
Irrigation and Water Supply Districts	97,000		
Waterworks Districts	64,000		
Miscellaneous	6,000		
	£205,000		
Estimated amount available from Revenue Producing Works to meet interest	£99,075		
Less Expenditure as per "B" and "C" above on Non-revenue Producing Works	17,875		
	£81,200		
To which add Estimated Revenues from other Authorities—			
Waterworks Trusts	£39,000		
Local Bodies	24,000		
	£63,000		
Total Estimated amount available from Revenues of all Authorities to meet Interest	£144,200		

STATEMENT OF LOAN LIABILITY.

STATEMENT of the amount 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 paid from the revenues of the Commission, and from the moneys received from such other Authorities, to provide such Interest for the year ended 30th June, 1915:—

Works.	Loan Liability of State for Works of Water Supply at 30th June, 1915, exclusive of Melbourne Water Supply.					Interest payable by State on Net Advances.	Total Interest of £255,847 debtable to—			Amount received from Revenues of all Authorities to meet Interest.
	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	£ 2,239,194	£ 29,666	£ 2,209,528	£ 169,927	£ 2,039,601	£ 77,000	£ 71,087	£ 41,158	(after deducting £17,737 for non-revenue producing works, including other State works).	
Irrigation and Water Supply Districts	1,608,009	13,136	1,594,873	575,152	1,019,721	55,578	20,015	35,563		
Goulburn Works (exclusive of Districts supplied are being debited with their portion of Interest on this Expenditure)	629,993	39	629,954	..	629,954	21,952	..	21,952		
Pyke's Creek and Werribee	140,100	..	140,100	..	140,100	4,881	..	4,881		
Waterworks Trusts (including First Mildura)	1,421,630	101,530	1,320,100	321,665	998,435	46,003	11,194	34,809	£50,050 (after deducting £3,196 for Capitalized Interest).	
Local Bodies (Municipalities)	707,921	87,895	620,026	163,760	456,266	21,607	5,699	15,908		
Irrigation Trusts Abolished	32,754	30	32,724	32,724	..	1,139	1,139	..		
Free Headworks	1,235,529	420	1,235,109	1,235,109	..	43,042	43,042	..		
Free Grants to Local Authorities	147,046	..	147,046	147,046	..	5,124	5,124	..		
Surveys, Exploratory, and Preliminary Works, including Purchase of Land reserved for Reservoirs	112,665	..	112,665	..	112,665	3,926	..	3,926		
Loan Moneys unexpended... .. .	160,555	..	160,555	160,555	..	5,595	5,595	..		
Totals	8,435,396	232,716	8,202,680	2,805,938	5,396,742	285,847	97,721	188,126	91,208	

Dated at the Office of the State Rivers and Water Supply Commission, Treasury
Gardens, Melbourne, the 25th day of October, 1915.

WM. CATTANACH, Chairman

J. S. DETHRIDGE, Commissioner.

E. SHAW, Commissioner

M. NALLY, Secretary.