

1905.
—
VICTORIA.

ANNUAL REPORT OF THE SECRETARY FOR
WATER SUPPLY

FOR THE

Y E A R 1904,

TO

THE HONORABLE GEORGE SWINBURNE, M.P., MINISTER
OF WATER SUPPLY FOR VICTORIA,

CONTAINING

REPORT OF THE CHIEF ENGINEER OF WATER SUPPLY FOR THE YEAR
ENDED 31ST DECEMBER, 1904; AND A FINANCIAL STATEMENT TO
30TH JUNE, 1905 (END OF FINANCIAL YEAR), BY THE ACCOUNTANT.

PRESENTED TO BOTH HOUSES OF PARLIAMENT BY HIS EXCELLENCY'S COMMAND.

By Authority: 18

ROBT. S. BRAIN, GOVERNMENT PRINTER, MELBOURNE.

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Victorian Water Supply,
Treasury Gardens, Melbourne,
17th July, 1905.

The Honorable George Swinburne, Minister of Water Supply.

SIR,—

I have the honour to submit herewith a Report, by the Chief Engineer of Water Supply, for the year ending 31st December, 1904; also a Financial Statement by the Accountant for the year ending 30th June, 1904.

I have the honour to be, Sir,

Your most obedient servant,

W. R. ANDERSON,
Secretary for Water Supply.

VICTORIAN WATER SUPPLY.

The Water Supply Branch of the Department has the administration of the *Water Act* 1890 (54 Vict. No. 1156) and the *Water Act* 1900 (63 Vict. No. 1651) which supersede all previous Acts for the conservation and distribution of water and management of the supply.

These Acts provide for the constitution of Waterworks Trusts, whose primary function is the supply of water for domestic and manufacturing purposes to towns, and for stock and domestic purposes to rural districts; and of Irrigation and Water Supply Trusts, whose function is to provide water for the irrigation of lands within their districts, as well as for stock and domestic purposes, the latter being a primary obligation.

Water supplies under these Acts are administered by—

- (a) Corporations other than trusts *i.e.*, Borough and Shire Councils and Water Commissions which have received from the State advances under the Local Governing Bodies Loan Acts and Mallee Tanks Loans Acts for the construction of works for local domestic supplies. There are 22 of these in existence. (See Appendix No. I.)
- (b) Waterworks Trusts constituted under the provisions of the law dealing with the conservation of water. There are 73 of these, of which 56 are for town supplies only. (See Appendix No. II.); the balance, 17, being rural or mixed rural and urban Trusts. (See Appendix No. III.)
- (c) Irrigation Trusts, 26 in number. (See Appendix No. IV.)
- (d) The Department. The Coliban and Geelong Waterworks, which have been carried out by the State, are directly administered by the Department.
- (e) The Department. National works under Division 10 of Part III. of the *Water Act* 1890, comprising the Goulburn, Loddon, Broken River, Kow Swamp, Lake Lonsdale, and Kerang Lakes National Works, are also administered by the Department.

WATERWORKS TRUSTS.

During the year, the Wangaratta Trust was constituted. Its supply will be obtained by pumping from the King River into an iron tank of 90,000 gallons capacity, elevated to a height of 100 feet.

Proposals to constitute Waterworks Trusts for the urban supply of Broadford, Cobram, Mildura, Leongatha, Sunbury, Tallangatta, and Yarram are being inquired into.

Proposals for the improvement of the supplies to the towns of Ararat, Avenel, Kyneton, and Violet Town, and to the districts of Shire of Tungamah and Wimmera United Trusts, are receiving consideration.

Additional loans have been granted during the year to Hamilton, Koroit, Shire of Numurkah and Wimmera United Trusts.

Works for the improvement of supplies to Euroa, Hamilton, Koroit, Korumburra, Nagambie, Shepparton, Swan Hill, Winchelsea, Wimmera United, Wodonga, and Yarrawonga Trusts have been carried out, and are proving satisfactory.

IRRIGATION AND WATER SUPPLY TRUSTS.

No new works of importance have been carried out during the year. The position of these Trusts remains unaltered.

COLIBAN SCHEME.

The Coliban Works supply water for domestic, manufacturing, and mining purposes to the city of Bendigo, the boroughs of Chewton, Castlemaine, Eaglehawk, and Raywood, and the townships of Taradale, Fryers, Maldon, Huntly, and Sebastian; and water for mining, irrigation, and general purposes to the inter-jacent districts.

The scheme includes two main storage reservoirs on the Coliban River, one at Malmsbury with a capacity of 3,337 million gallons; the other at a point about half-a-mile below the junction of the Little Coliban, with a capacity of 4,100 million gallons; 292 miles of main and branch channels; 26 subsidiary reservoirs and tanks, with an aggregate storage capacity of 1,407 million gallons; 269 miles of main and reticulation pipes, together with flumes, bridges, and minor works.

The amount of loan moneys actually expended on these works to 30th June, 1904, was £1,153,946. For particulars in regard to receipts and expenditure for the year 1903-4 see page 24.

Extensions of pipe reticulation have been carried out at Bendigo, Eaglehawk, Castlemaine, Chewton, Maldon, and other places.

GEELONG SCHEME.

The Geelong works supply the town of Geelong, the boroughs of Geelong West and Newtown and Chilwell, and portions of the shires of South Barwon, Corio, and Bellarine.

The works include the Upper and Lower Stony Creek Reservoirs, with a joint capacity of 560,000,000 gallons. The supply available from the local catchment is supplemented by water delivered into the upper reservoir by a channel 23 miles in length, from a weir on the Eastern Moorabool River, 4 miles north-westerly of Ballan. From the upper reservoir an open aqueduct, 6 miles in length, conveys the water to a pipe-head basin at Anakie. From the lower reservoir a 9-in. main, 3½ miles in length, joins the outlet pipe from the pipe-head basin in such manner that the supply may be drawn from either the upper or lower reservoir, or both. From Anakie the water is carried through 13¾ miles of 14-in. pipes to the Lovely Banks Service Basin, which has a capacity of 6,000,000 gallons; and thence to Geelong by a 16-in. main, and to a high level service basin at Montpelier by a 14-in. main. The main from Anakie is also connected to the main from Lovely Banks to Geelong by a by-pass, so that the supply can, when required, be sent direct to the town from Anakie basin, or from the Lower Stony Creek Reservoir. The reticulation, including the mains from Lovely Banks, comprises 124 miles of piping, with the usual fittings. At Lovely Banks there are settling ponds for the purification of the water by lime precipitation, and an overflow column for regulating the maximum pressure in the mains.

The amount of loan moneys actually expended on these works to 30th June, 1904, was £441,259. For particulars in regard to receipts and expenditure for the year 1903-4 see page 24.

The flumes on the aqueduct from the Upper Stony Creek Reservoir having become unserviceable, it was decided to replace them by wrought-iron syphons. This work is now in progress.

Pipe scraping and other works have been carried out during the year.

GOULBURN-WARANGA NATIONAL WORKS.

These National Works comprise a weir on the Goulburn River, 9 miles above Murchison, a main western channel, with regulators, offtakes, flumes, &c., and the Waranga Storage Reservoir, the construction of which is in progress. The nearest point of the reservoir is about 3 miles north-east of Rushworth. The total cost of the works to date, inclusive of land compensation, is £594,452.

Goulburn Weir.—The weir raises the summer level of the river about 45 feet, *i.e.*, from 363 feet R.L. to 408 feet R.L., and provides an available storage of 900 millions of cubic feet for the channel offtakes. Its length, over abutments, is 695 feet, exclusive of the channel regulators, a further 230 feet. The body of the work

is of Portland cement concrete, faced on the down-stream side with coursed granite blocks in steps, each course being laid upon and notched into that below. The water-way of the weir is occupied by 21 flood-gates, each 20 feet horizontal by 10 feet vertical in the clear. For the passage of floods these gates are lowered into chambers in the body of the structure, so as to be flush with the crest of the masonry. They are so regulated as to maintain the water impounded by the weir at the raised summer level, 10 feet above the permanent crest. Each gate weighs about 7 tons, and is worked by screw-gearing, the motive power being obtained through three 30½-in. "Leffel" turbines. Hand-gearing is also provided over each gate, to be available in case of emergency or accident to the shafting. An electric lighting plant comprising a Brush dynamo, belt-driven from a 23-in. "Leffel" turbine, and running five 2,000 candle-power arc lamps, is provided for convenience of night work during floods. The heaviest that have passed over the weir since its completion were those of July, 1891, and July, 1894, on both of which occasions the computed discharge was 1,424,000 cubic feet per minute.

Regulators.—Immediately connected with the weir are two regulators for the eastern and western channel offtakes. These are of masonry in continuation of the masonry of the main structure, with cast-iron gate standards, that serve also to carry the bridging across the channel heads. The western regulator is fitted with fourteen, and the eastern with four, centre-pin gates, each 10 feet horizontal by 7 feet vertical in the clear, operated by worm-wheel gearing worked by hand.

Western Main Channel.—On the west side of the river a channel has been constructed, 24 miles in length, to carry, when running full, 103,000 cubic feet per minute to the Waranga Reservoir. The bed width of the channel is 110 feet; normal side slopes 1½ to 1; and full supply carrying depth 7 feet.

The 600 miles of channels in the Rodney Irrigation, and Echuca and Waranga Waterworks Trusts, are supplied through four offtakes from the National channel.

Waranga Reservoir.—The Waranga Reservoir is being formed by the construction of an embankment 4¼ miles long, across the mouth of the broad flat depression known as the Waranga Swamp. The total capacity of the reservoir will be 9,000 millions of cubic feet, whereof 8,600 millions will be available. The depth of water over the greater part of the submerged area of 18¼ square miles will be about 20 feet. The main outlet channel will run north-westerly to the Campaspe; a minor outlet channel will serve the country to the north. Contracts amounting to £144,000 are in progress for the inlet, the embankments, and the outlets.

The survey for the main channel westward is advanced to Tandarra; that for the eastward channel is completed to two miles beyond the Broken River.

LODDON NATIONAL WORKS.

Laanecoorie Storage.—This is a regulating reservoir on the Loddon River about half-a-mile above Laanecoorie. Its purpose is to regulate the flow of the river and increase its effective volume by storing the water of floods against those periods when the natural flow would be insufficient. The dam is a compound structure, the portion in the river bed being an overshot weir of concrete masonry, with a line of wrought-iron automatic gates (of the type invented by M. Chaubart) along the crest, for the discharge of floods, while from the weir to the left bank it is in the form of an earthen embankment, protected on the rear slope by stony material, and on the face by broken stone beaching in the lower, and by pitchers of cement concrete in the upper part. The length of the masonry weir is 320 feet, and of the earthen extension 700 feet, the total length of the works over all being 1,020 feet. The outlets consist of four—each 36 inches diameter—circular cast-iron pipes, built into the body of the masonry, each controlled by a valve worked by gearing from a gangway above flood level. The water impounded by the reservoir extends some 5½ miles up the river valley, the available contents to the top of the gates being 610 millions of cubic feet.

The total cost of the work to date, inclusive of land compensation, is £136,674.

Bridgewater Weir.—A work of concrete masonry over the Loddon River, near Bridgewater. It forms, in fact, a kind of cap or continuous crest to a natural barrier of basaltic rock crossing the river at this point. Its function is to aid in diverting water from the river into the Bridgewater channel, which conveys a

supply from the Loddon to the Bullock Creek. This weir, as well as the Kinypanial weir, described hereunder, was constructed by the Loddon United Water Trust, but was subsequently taken over as a National Work by the Board of Land and Works after the Trust district had been greatly reduced by the formation of Irrigation Trusts. The Loddon United Trust was by Act of Parliament relieved of its liability in respect of these weirs, amounting to £17,000.

Kinypanial Weir.—This weir is a timber structure on the Loddon, near the effluence of the Kinypanial Creek, and its purpose is, in conjunction with the head sluice and cutting that supply the creek, to regulate and control the quantities of water sent into it from the river. By the Kinypanial Creek are sent the supplies to the Boort East and Boort North Irrigation Trusts, and to Johnson's Creek and the Catumnal channel and other natural and artificial lines of conveyance serving portions of the Loddon United Trust District.

KOW SWAMP NATIONAL WORKS.

These comprise an intake and regulator at the effluence from the Murray River of Gunbower Creek, with a direct cut thence into a natural lagoon, known as the Kow Swamp; the Gunbower itself and Taylor's Creek being utilized, as far as possible, by deepening and cutting off bends, as part of the channel of conveyance from the offtake to the storage. The Kow Swamp has been converted into a reservoir, capable of storing 1,780 millions of cubic feet of water, available for summer use. The supply is also carried on from Taylor's Creek by a channel passing along the north side of the reservoir, and thence westerly by the Macorna channel to the Loddon. The reservoir is tapped at its north-western point, and connected by a short branch to the Macorna channel, which thus gets its supply direct from the Murray in winter and from the Kow Swamp storage in summer. The Macorna channel reaches the Loddon at a point about 12 miles south from Kerang, crosses the river by a wrought-iron syphon of 6 feet diameter, and there terminates. The total distance, by the course of the works, from the Gunbower intake to the Loddon crossing is 42 miles. The supply capable of being delivered is equal to 10,000 cubic feet per minute during the winter, and 6,300 cubic feet per minute during the summer months. The purpose of these works is to furnish a supply of water for stock and domestic and irrigation purposes to the Lower Loddon district, the demands of which the Loddon River was unable to meet.

Various maintenance works have been carried out during the year; the total cost of the work to date, including land compensation, is £180,006.

BROKEN RIVER NATIONAL WORKS.

Casey's weir and the main channel therefrom to the Broken Creek, and Gowangardie weir and offtake sluice were made National Works by Act of Parliament in 1900. The Trusts concerned were relieved of their liabilities in respect of these works as under:—Tungamah, £4,750; Numurkah, £4,700; and Shepparton, £5,000. In addition to these amounts there has been direct expenditure by the Department to the extent of £403, making the total cost £14,483.

Casey's Weir.—This weir is on the Broken River, about 8 miles below Benalla. It is a concrete masonry structure, resting partly on solid rock, and partly on driven piles. The construction of the weir was carried out by the Shire of Yarrawonga, now the Shire of Tungamah, and the Shire of Shepparton, now the Shire of Numurkah, Waterworks Trusts. The weir serves to divert the water by way of an excavated channel to the Broken Creek, and so through the shires of Benalla, Tungamah, and Numurkah.

The main channel leading from the weir to the Broken Creek is 55 chains in length, with a bed width of 9 feet, and side slopes 1 to 1.

Gowangardie Weir.—This weir was built by the Shire of Shepparton Waterworks Trust; it is situated about 15 miles below Casey's weir, measuring in a straight line, and about 2 miles below the township of Nalinga.

The weir and head sluice are constructed of concrete masonry on a rock foundation. The water of the river is backed up by the weir, and passes through the head sluice and down a formed channel into the district of the Shire of Shepparton Waterworks Trust. The flow of the water in the channel is regulated by means of a gate in the head sluice. The weir is furnished with a compensation notch through which the supply passes to the lower river.

KERANG LAKES NATIONAL WORKS.

The Kerang lakes extend in a chain in a north-westerly direction from Kerang to the Murray. The principal are Reedy Lake, Lake Charm, Cullen's Lake, Kangaroo Lake, and Lake Tutchewop. In years of plentiful rainfall they were occasionally supplied by the waters of the Loddon, which were diverted for the purpose at the Kerang weir. But during the period between 1894 and 1899, partly because of the exceptional dryness of the seasons, and partly because portions of the diverting works were destroyed by floods, the quantity of water diverted was insufficient to make good the natural loss by evaporation, and consequently several of the lakes became dry.

A sum of £10,000 having been provided in 1900 by Loans Application Act No. 1629, the following works were carried out:—

The notch of the weir in the Loddon, at Kerang, was widened, and the crest lowered, with the object of reducing the height of water above the weir at flood times.

Regulating weirs were constructed in the Sheepwash and Washpen Creeks, and the latter was cleared and deepened.

Supply channels were constructed to all of the lakes, and an overflow channel from Lake Tutchewop to the Little Murray River; the works being completed in 1901.

During this year, the lakes were all filled, and besides water for stock and domestic purposes, considerable supplies for irrigation were afforded.

The total cost of the works to date, including land compensation, is £9,515.

MALLEE WATER SUPPLY.

Upper Wimmera Storages.—The Lake Lonsdale Reservoir was completed in the early part of last year. It is formed by a dam $1\frac{1}{2}$ miles in length, constructed across the Little Wimmera River, and the low ground adjacent, at the outlet from the lake. On the left bank of the river, the dam is of earth, with an inner core-wall of clay, extending northward for a length of 7,695 feet from the high ground on the northern slopes of Mount Dryden to the river. The river channel is crossed by a rubble concrete masonry weir, 310 feet long, with its crest at 617 feet, R.L. A by-wash has been excavated on the right bank of the river, in the rocky spur of Mount Drummond, with a waste weir 325 feet in length. The capacity at full supply level is 1,981 million cubic feet, and it submerges an area of about 6,000 acres to an average depth of 7ft. 7in., the maximum depth being 15 feet. It was filled during last year, and again this year. The whole of the land required has not yet been purchased, but it is expected that the total cost, including land compensation and all charges, will not exceed £50,000.

At Eversley, on the Upper Wimmera, surveys and borings in connexion with the investigation of a site for a storage reservoir have been completed. The site has been found suitable for the proposed reservoir, which would have a capacity of 2,250 million cubic feet, and would cost about £145,000. The work is, however, postponed owing to funds not having been yet made available.

In the meantime, it has been ascertained that the Upper Wannon River waters, from a catchment area of 44 square miles, can be diverted to the Mokepilly Creek, and through it to Lake Lonsdale. A trial survey is now in progress.

A preliminary investigation has been made of a scheme for regulating the flow of the Wimmera River, above Glenorchy weir, by works including a small reservoir near the weir, whereby the divertible volumes of flood waters could be very considerably increased.

Morton Plains System.—That portion of the Sea Lake channel which extends from Birchip to Sea Lake has proved of great value. It drains the plains around Birchip, and in its course supplies Garrett's Swamp, Round Swamp, Green Lake, and Sea Lake.

Channels have been constructed from Morton Plains to the Birchip end of the Sea Lake channel, and from the Richardson River at Donald to Morton Plains, thus making a continuous channel from Donald to Sea Lake.

Branch channels have been constructed as under :—On the east : From the Donald-Sea Lake channel at Morton plains, *viâ* Tchum Lakes, to Kaneira; from the same channel at Marlbed to Berriwillock and Boigbeat; and from the latter branch near Boigbeat to the Nine Mile Tank on Tyrrell Creek. On the west : From the Donald-Sea Lake channel, near Watchem, *viâ* Ballapur and Watchupga, to within three miles of Woomelang on the south side; and from the same channel at Slattery's, *viâ* Banyan and Myail, to Tyrrell West. The flood overflow channel from Lake Lalbert to Lake Timboram, near Waitchie, has been defined. Eleven tanks, of capacities varying from 5,000 to 10,000 cubic yards, have been excavated along these channels.

Long Lake Pumping Scheme.—This scheme, as authorized by the Long Lake Water Supply Act (2 Ed. VII., No. 1808), is now completed. It provides a supply of water for stock and domestic purposes to part of the Eastern Mallee, comprising an area of about 600 square miles. The sources of supply are Long Lake, Lake Baker, and Round Lake, which are situated in the parish of Kunat Kunat, county of Tatchera, and are filled during flood times by overflow from the Little Murray. The scheme comprises a powerful pumping plant on the west bank of Long Lake, capable of discharging 3,000,000 gallons per day; a rising main, 18 inches in diameter and $7\frac{1}{4}$ miles long, extending westerly to Goschen, 120 feet above low water of the lakes; and main distributary channels therefrom, running northerly a distance of 40 miles to Tyntynder North, westerly $27\frac{1}{2}$ miles to Ultima, and southerly 18 miles to Lalbert. The total cost of the scheme, as designed, has not exceeded the £27,500 allotted for it. The original scheme provided that the minor distributaries, or branch channels, should be constructed by the settlers at their own cost. This arrangement was found to be impracticable, and a further sum of £7,000 was provided to construct the more important of the minor distributaries. No time will be lost in the location and construction of these. The main distributary channels were in operation during the year, and were found to carry the flow very successfully. It is certain that when the area is properly reticulated and tanks of sufficient size are provided, the scheme will prove of very great value in assuring an ample stock and domestic water supply, so much so that already there are indications of a desire on the part of outside holders to be included in the area.

Lower Wimmera Storages.—For the better conservation of water for the benefit of residents along the Lower Wimmera, it was decided to construct a series of timber weirs at Jeparit, Antwerp, Dimboola, and Drung Drung. These have now been satisfactorily completed, and the storages are in full operation. The storages, which have a total combined capacity of 125,000,000 cubic feet, are a valuable addition to the water resources of the district, and their successful establishment has given much satisfaction. Their total cost has been £8,578.

Advances to Shires.—Further works have been carried out during the year, particularly by the Karkaroc Shire, in excavating and constructing tanks in the Mallee with loan moneys made available under the Mallee Tanks Acts.

FIRST MILDURA TRUST.

The total expenditure of loans to date, inclusive of advances in aid of revenue, is £58,700.

The Trust has 169 miles of channels, about 65 of which are now lined with lime concrete. Minor works for the improvement of channels have been carried out during the year.

BORING FOR WATER.

No boring for artesian water has been carried out by the Department during the year.

Boring in search of surface supplies is being carried on in the Shires of Arapiles, Castle Donnington, Dunmunkle, Lawloit, Stawell, and Waranga by means of hand-boring plants. The plants are lent by this Department free of cost, the Shires undertaking to return them when required, in good working order. All railway freight is borne by this Department. The Shires lend the plants to farmers, who have already found several valuable supplies.

RIVER GAUGING.

This work embraces the continuous gauging of 34 streams, at about 66 points. Besides these, numerous gaugings of channels connected with National Works, and of those constructed by Irrigation and Waterworks Trusts, and of various streams proposed as sources of supply for mining and other purposes have been, and are from time to time being, undertaken. The results of all gaugings are available at this office for the use and information of Irrigation and Waterworks Trusts and others interested.

ANALYSIS OF WATER.

Analyses and biological examinations of water, supplied from the works under the direct control of the Board of Land and Works, and from other sources, are made from time to time by the Government Agricultural Chemist. Trusts may have samples examined on application to the Department.

A map showing the principal irrigation and rural water supply works in the State appears after page 38.

STUART MURRAY,
Chief Engineer of Water Supply.

Department of Water Supply,
Melbourne, 17th July, 1905.

APPENDIX No. I.
Loans to Corporations other than Trusts.

Corporation.	Advanced to 31st December, 1904.	Reduced by—		Balance at Debit of Capital Account at 31st December, 1904.	Interest Outstanding, 31st December, 1904.
		Written off by Act 1625.	Payments to Redemption to 31st December, 1904.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Arapiles Shire	3,600 0 0	...	767 0 0	2,833 0 0	156 0 0
Ararat Borough	45,500 0 0	18,266 0 0	976 0 0	26,258 0 0	...
Ballarat Commission	351,169 0 0	2,110 0 0	27,861 0 0	321,198 0 0	...
Beechworth Shire	30,182 0 0	5,958 0 0	3,602 0 0	20,622 0 0	...
Birchip Shire	2,669 0 0	...	190 0 0	2,479 0 0	...
Borong Shire	9,059 0 0	...	735 0 0	8,324 0 0	...
Chiltern Shire	5,008 0 0	508 0 0	637 0 0	3,863 0 0	78 0 0
Clunes Borough	70,195 0 0	6,239 0 0	195 0 0	7,605 0 0	153 0 0
Creswick Borough	3,500 0 0	...	3,500 0 0	...	...
Dimboola Shire	2,566 0 0	...	192 0 0	2,374 0 0	...
Dunolly Borough	2,190 0 0	...	779 0 0	1,411 0 0	28 0 0
Inglewood Borough	5,150 0 0	...	1,516 0 0	3,634 0 0	73 0 0
Karkaroc Shire	14,879 0 0	...	601 0 0	14,278 0 0	...
Kerang Shire	2,313 0 0	...	108 0 0	2,205 0 0	...
Korong Shire	1,564 0 0	...	378 0 0	1,186 0 0	24 0 0
Ripon (Beaufort) Shire	3,000 0 0	...	1,262 0 0	1,738 0 0	35 0 0
Stawell Borough	108,506 0 0	61,661 0 0	2,974 0 0	43,871 0 0	886 0 0
Swan Hill Shire	3,887 0 0	...	337 0 0	3,550 0 9	...
Talbot Borough	15,000 0 0	13,986 0 0	38 0 0	976 0 0	20 0 0
Tarnagulla Borough	800 0 0	...	133 0 0	667 0 0	...
Wimmera Shire	4,630 0 0	...	1,901 0 0	2,729 0 0	55 0 0
Wycheproof Shire	2,445 0 0	...	159 0 0	2,286 0 0	...
Totals	687,812 0 0	164,884 0 0	48,841 0 0	474,087 0 0	1,508 0 0

APPENDIX No. II.
Loans to Waterworks Trusts administering Town supplies only.

Name of Trust.	Advances to 31st December, 1904.	Written off by Act No. 1625.	Reduced by—		Interest outstanding 31st December, 1904.
			Payments to Redemption to 31st December, 1904.	Balance at debit of Capital Account at 31st December, 1904.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Alexandra	3,359 0 0	...	68 0 0	3,291 0 0	66 0 0
Avenel	1,684 0 0	...	129 0 0	1,555 0 0	31 0 0
Ballan	1,100 0 0	...	214 0 0	886 0 0	18 0 0
Benalla	15,579 0 0	...	2,511 0 0	13,068 0 0	264 0 0
Boort	1,150 0 0	150 0 0	25 0 0	975 0 0	20 0 0
Bright	2,990 0 0	...	236 0 0	2,754 0 0	56 0 0
Carisbrook	8,400 0 0	2,400 0 0	150 0 0	5,850 0 0	118 0 0
Charlton	7,877 0 0	887 0 0	22 0 0	6,968 0 0	179 0 0
Dandenong	19,129 0 0	5,128 0 0	263 0 0	13,738 0 0	207 0 0
Daylesford Borough	27,000 0 0	3,139 0 0	985 0 0	22,876 0 0	461 0 0
Donald	8,166 0 0	1,166 0 0	167 0 0	6,833 0 0	138 0 0
Echuca Borough	13,150 0 0	...	1,165 0 0	11,985 0 0	242 0 0
Elmore	4,000 0 0	...	271 0 0	3,729 0 0	75 0 0
Euroa	17,242 0 0	...	920 0 0	16,322 0 0	328 0 0
Gisborne	4,668 0 0	...	782 0 0	3,886 0 0	78 0 0
Hamilton	36,900 0 0	...	704 0 0	36,196 0 0	731 0 0
Healesville	4,661 0 0	...	397 0 0	4,264 0 0	86 0 0
Heathcote	7,394 0 0	...	266 0 0	7,128 0 0	144 0 0
Horsham Borough	17,713 0 0	7,712 0 0	316 0 0	9,685 0 0	195 0 0
Kerang	4,000 0 0	...	56 0 0	3,944 0 0	80 0 0
Kilmore	14,148 0 0	...	1,628 0 0	12,620 0 0	268 0 0
Korumburra	11,492 0 0	...	289 0 0	11,203 0 0	...
Koroit	5,047 0 0	2,047 0 0	75 0 0	2,925 0 0	59 0 0
Kyabram	507 0 0	...	92 0 0	415 0 0	8 0 0
Kyneton Shire	26,680 0 0	...	7,604 0 0	19,076 0 0	385 0 0
Lancefield	7,082 0 0	...	291 0 0	6,791 0 9	137 0 0
Lillydale	2,741 0 0	...	...	2,741 0 0	35 0 0
Longwood	2,400 0 0	550 0 0	46 0 0	1,804 0 0	36 0 0
Macedon	2,600 0 0	...	128 0 0	2,472 0 0	50 0 0
Mansfield	7,931 0 0	...	611 0 0	7,320 0 0	148 0 0
Maryborough	76,257 0 0	9,200 0 0	1,779 0 0	65,278 0 0	...
Mooroopna	3,053 0 0	1,400 0 0	54 0 0	1,599 0 0	32 0 0
Murchison	2,800 0 0	...	12 0 0	2,788 0 0	99 0 0
Nagambie	2,775 0 0	...	303 0 0	2,472 0 0	50 0 0
Nhill	10,068 0 0	2,482 0 0	188 0 0	7,398 0 0	149 0 9
Omco	3,982 0 0	...	285 0 0	3,697 0 0	75 0 0
Riddell's Creek	3,500 0 0	497 0 0	72 0 0	2,981 0 0	59 0 0
Rochester	1,300 0 0	...	105 0 0	1,195 0 0	21 0 0
Romsey	4,700 0 0	...	786 0 0	3,914 0 0	79 0 0
Rushworth	4,500 0 0	...	16 0 0	4,484 0 0	90 0 0
Rutherglen	16,485 0 0	...	342 0 0	16,143 0 0	326 0 0
Seymour	27,959 0 0	...	1,105 0 0	26,854 0 0	542 0 0
Shepparton Urban	18,731 0 0	2,416 0 0	1,098 0 0	15,217 0 0	...
Shire of Winchelsea	3,922 0 0	...	98 0 0	3,824 0 0	77 0 0
St. Arnaud Borough	44,800 0 0	15,077 0 0	620 0 0	29,103 0 0	588 0 0
Swan Hill	3,988 0 0	...	47 0 0	3,941 0 0	79 0 0
Tatura	2,847 0 0	650 0 0	233 0 0	1,964 0 0	40 0 0
Upper Macedon	1,300 0 0	...	266 0 0	1,034 0 0	21 0 0
Violet Town	2,850 0 0	...	99 0 0	2,751 0 0	55 0 0
Wangaratta	5,628 0 0	...	...	5,628 0 0	98 0 0
Warracknabeal	4,116 0 0	...	367 0 0	3,749 0 0	76 0 0
Warrambool	38,500 0 0	...	1,022 0 0	37,478 0 0	256 0 0
Wodonga	7,722 0 0	...	192 0 0	7,530 0 0	154 0 0
Woodend	7,663 0 0	...	1,999 0 0	5,664 0 0	114 0 0
Yarrowonga Urban	8,860 0 0	...	1,188 0 0	7,672 0 0	154 0 0
Yea	3,816 0 0	...	26 0 0	3,790 0 0	77 0 0
Totals	598,852 0 0	54,901 0 0	32,613 0 0	511,338 0 0	7,954 0 0

APPENDIX No. III.

Loans to Waterworks Trusts administering Water Supplies to Rural or Mixed Rural and Urban Districts.

Name of Trust.	Advanced to 31st December, 1904.		Written off by Act No. 1625.	Reduced by—		Interest outstanding 31st December, 1904.				
	£	s. d.		Payments to Redemption to 31st December, 1904.	Balance at debit of Capital Account at 31st December, 1904.					
Avoca United	9,569	0 0	2,494	0 0	265	0 0	6,810	0 0	139	0 0
Bet Bet Shire	5,604	0 0	..	..	1,025	0 0	4,669	0 0	97	0 0
Birchip	4,905	0 0	..	..	94	0 0	4,811	0 0	97	0 0
Kowree	2,707	0 0	..	..	68	0 0	2,639	0 0	53	0 0
Lawloit	12,095	0 0	..	..	302	0 0	11,793	0 0	238	0 0
Loddon United	21,771	0 0	1,717	0 0	..	..	20,054	0 0	3,697	0 0
Lowan Shire	11,689	0 0	..	..	294	0 0	11,386	0 0	230	0 0
Shire of Kara Kara	7,343	0 0	..	..	184	0 0	7,159	0 0	145	0 0
Shire of Kerang	1,200	0 0	..	..	22	0 0	1,178	0 0	24	0 0
Shire of Numurkah	22,743	0 0	1,376	0 0	2,072	0 0	19,295	0 0	391	0 0
Shire of Shepparton	17,548	0 0	1,376	0 0	841	0 0	15,331	0 0	310	0 0
Shire of Stawell	1,370	0 0	250	0 0	1,120	0 0	..	..	..	..
Shire of Tungamah	12,241	0 0	..	..	333	0 0	11,908	0 0	240	0 0
St. Arnaud Shire	7,486	0 0	..	..	887	0 0	6,599	0 0	161	0 0
United Echuca and Waranga	70,369	0 0	34,748	0 0	1,533	0 0	34,088	0 0	1,690	0 0
Wimmera United	142,844	0 0	36,392	0 0	322	0 0	106,130	0 0	2,066	0 0
Wycheproof	8,950	0 0	700	0 0	719	0 0	7,571	0 0	153	0 0
Totals	360,555	0 0	79,053	0 0	10,081	0 0	271,421	0 0	9,731	0 0

APPENDIX No. IV.

Loans to Irrigation and Water Supply Trusts.

Name of Trust.	Advanced to 31st December, 1904.		Written off by Acts Nos. 1625 and 1651.	Reduced by—		Interest outstanding 31st December, 1904.				
	£	s. d.		Payments to Redemption to 31st December, 1904.	Balance at debit of Capital Account at 31st December, 1904.					
Bacchus Marsh	13,906	0 0	8,906	0 0	173	0 0	4,827	0 0	97	0 0
Bairnsdale	31,439	0 0	23,439	0 0	200	0 0	7,800	0 0	157	0 0
Benjeroop and Murrabit	12,926	0 0	7,200	0 0	64	0 0	5,672	0 0	340	0 0
Campaspe	61,700	0 0	52,685	0 0	227	0 0	8,788	0 0	181	0 0
Carrum	26,732	0 0	7,732	0 0	50	0 0	17,950	0 0	1,546	0 0
Cohuna	151,213	0 0	93,968	0 0	512	0 0	56,733	0 0	3,000	0 0
Dry Lake	1,704	0 0	686	0 0	293	0 0	725	0 0	15	0 0
East Boort	21,566	0 0	14,866	0 0	142	0 0	6,558	0 0	244	0 0
Gunbower West	5,889	0 0	..	..	..	..	5,889	0 0	292	0 0
Kerang East	14,025	0 0	6,984	0 0	18	0 0	7,023	0 0	281	0 0
Koondrook and Myall	15,130	0 0	12,080	0 0	38	0 0	3,012	0 0	55	0 0
Leaghur and Meering	5,043	0 0	2,543	0 0	65	0 0	2,435	0 0	49	0 0
Maorna North	18,557	0 0	8,082	0 0	..	..	10,475	0 0	429	0 0
Marquis Hill	14,477	0 0	9,076	0 0	2	0 0	5,399	0 0	534	0 0
Millewa	973	0 0	..	..	..	..	973	0 0	601	0 0
North Boort	6,978	0 0	4,867	0 0	52	0 0	2,059	0 0	42	0 0
Rodney	223,069	0 0	149,949	0 0	2,339	0 0	70,781	0 0	1,425	0 0
South Kerang	633	0 0	..	..	11	0 0	622	0 0	13	0 0
Swan Hill	24,800	0 0	19,799	0 0	57	0 0	4,944	0 0	100	0 0
Torrumbarry North	12,300	0 0	6,300	0 0	..	..	6,000	0 0	1,320	0 0
Tragowel Plains	159,848	0 0	124,534	0 0	444	0 0	34,870	0 0	1,305	0 0
Twelve-mile	5,050	0 0	3,250	0 0	14	0 0	1,786	0 0	64	0 0
Wandella	30,754	0 0	20,929	0 0	105	0 0	9,720	0 0	294	0 0
Werribee	6,000	0 0	..	..	..	..	6,000	0 0	3,872	0 0
Western Wimmera	213,943	0 0	132,835	0 0	2,820	0 0	78,288	0 0	1,591	0 0
Yatchaw	6,262	0 0	1,661	0 0	115	0 0	4,486	0 0	90	0 0
Totals	1,083,927	0 0	712,371	0 0	7,741	0 0	363,815	0 0	17,936	0 0

Department of Water Supply,
Melbourne, 31st December, 1904.

WATER SUPPLY LOANS.

STATEMENTS SHOWING THE POSITION AT 30TH JUNE, 1904, WITH REGARD TO LOANS RAISED FOR AND EXPENDED BY THE WATER SUPPLY DEPARTMENT.

In the preparation of these statements care has been taken to avoid technicality as far as possible, and endeavour made to render them in a form that can be readily understood—the object being to show the position clearly and distinctly, so that any one desiring to follow the various transactions may do so without effort or fear of misconception. At the same time, some elaboration has been necessary in the statements bearing on Advances to Bodies, in order to clearly set out the writings off of Capital and Interest by Act No. 1625 in 1899, and the Transfers of Works at various times.

For the sake of easy reference, the statements have been divided into distinctive parts, as follow :—

PART I.—SUMMARY.

General Summary of Transactions in connexion with Water Supply Loans
to 30th June, 1904. (Page 16.)

PART II.—LOANS RAISED AND EXPENDED.

- (a) *Original Loans* issued to obtain funds for expenditure, and *Renewal Loans*, issued to redeem original loans at maturity, showing under each Act the gain by way of premium or the loss by way of discount and expenses, as the case may be. (Pages 17 and 18.)
- (b) *Reconciliation of Water Supply Loan Expenditure with the Treasury.* (Page 19.)
- (c) *The Services upon which the Moneys raised have been Expended*, with apportionment of premiums, discount, and expenses, and redemption contributions. (Page 19.)
- (d) *Advances to Bodies* (a sub-statement of (c)—the liability of Department on account of loans raised, and in contrast the liability of Bodies to Department, showing the position—(1) had there been no writing off; and (2) allowing for the writing off. (Page 20.)

PART III.—INTEREST PAYABLE ON LOANS.

- (a) *The Amount of Loans outstanding at 30th June, 1904*, at the different rates of interest, and the total interest payable at each rate. (Page 21.)
- (b) *The like Information under each Service* to which the moneys raised have been applied. (Page 22.)
- (c) *Interest on Advances to Bodies* (a sub-statement of (b)—the interest payable by Department on account of loans raised and advanced to Bodies, and that payable to Department by Bodies, showing the interest payable—(1) had there been no writing off of capital; and (2) on the written down capital. (Page 23.)

PART IV.—RECEIPTS AND EXPENDITURE (INTEREST, MAINTENANCE, ETC.) “LOAN WORKS,” 1903-4, AND WATER SUPPLIED FREE FROM “LOAN WORKS,” 1903-4.

- (a) *Receipts from and Expenditure* (for Interest, Maintenance, and Management) *in connexion with Loan Works* during year 1903-4. (Page 24.)
- (b) *Area over which Water is supplied free to Bodies* for Irrigation and for Stock and Domestic purposes. (Page 24.)

PART V.—EXPENDITURE FROM CONSOLIDATED REVENUE DURING 1903-4.

- (a) *For Investigation and Reports on proposed Loan Works*, and for part cost of supervision of construction of “Loan Works.” (Page 25.)
- (b) *For Extension of Reticulation* in connexion with the Coliban and Geelong Systems. (Page 25.)

PART VI.—APPENDICES.

- A.—*Details of Transactions with each Body*, embraced in the headings “Local Bodies,” “Waterworks Trusts,” “Irrigation, &c., Trusts,” “Mallee Shires,” and “First Mildura Irrigation Trust”—PART II. (d). (Pages 27-31.)
- B.—*Details of Transfers of Liabilities* from *Bodies to Bodies* appearing in A. above. (Pages 32-33.)
- C.—*Details of Transfers of Liabilities* (appearing in (A) above) from *Bodies to “Loan Works”* under the control of Department. (Page 34.)
- D.—*Present Apportionment*, varied from original distribution, through Transfer of Works, of the £100,000 grant (Act No. 760) to Waterworks Trusts for construction of Headworks. (Page 35.)
- E.—*Details of Grants to Local Bodies* (in early days) from Loan Funds. (Page 36.)
- F.—*Details of the Bodies referred to under general headings* in PART III. (c), from which interest liability was written off under Act No. 1625, showing amount of relief afforded in each instance. (Page 37.)
- G.—*Return, in cubic feet, of Water supplied free* during year 1903-4, to Bodies against which Area supplied free is shown in PART IV. (b). (Page 38.)

The statements bearing on Water supplied to Bodies free of charge, PART IV. (b) and PART VI., G., have been introduced for the purpose of showing that there is a substantial set-off, in the form of service rendered, to the heavy annual charge (for Interest, Maintenance, &c.) on certain Loan Works from which the receipts are merely nominal.

M. MINOGUE, Accountant,
Mines and Water Supply Department.

PART I.

WATER SUPPLY DEPARTMENT.

LOANS.—30th JUNE, 1904.

SUMMARY.

Original Loans—

Cash realized, as per next page	£	5,724,546
Discount and Expenses on Flotation, as per next page	131,288	
Premiums off (as per next page)	2,588	
		128,700
Debentures, Stock, and Treasury Bonds issued, as per next page ...		5,853,246

Renewal Loans—

Debentures, Stock, and Treasury Bonds issued to take up original loans at maturity	2,347,864	
Original Debentures and Stock taken up at maturity	2,277,115	
		70,749
Increase of Debt (Amount absorbed for Discount and Expenses), as per next page ..		70,749
Present Liability (gross) for Debentures, Stock, and Treasury Bonds issued, as per next page..		5,923,995

Present Liability (gross) as above	5,923,995	
Redemption Fund—Paid into Treasury to Credit Victorian Consolidated Stock Redemption Fund (Act 1561), as per page 19	128,860	
		5,795,135
Present Liability (net) for Debentures, Stock, and Treasury Bonds issued ..		5,795,135

Cash Realized on Flotation of Original Loans, as above	5,724,546	
Expended to 30th June, 1904, as per page 19	5,660,736	
		63,810
Available for Expenditure at 30th June, 1904		63,810

PART II. (a).

(a).

WATER SUPPLY DEPARTMENT.

LOANS.—30th JUNE, 1904.

ORIGINAL LOANS.	Act	287.	332.	531.	428, 439, 741, 1015, 1369.	608.	611.	717.	760.	805.	845.	989, &c.*	1032.	1217.	1562.	1623.	1659.	1753.	1800.	Totals.	Plus or Minus.	Liability (Gross) at 30th June, 1904, on Account of Debentures, Stock, and Treasury Bonds Issued.			
	Form	Debentures.	Debentures.	Debentures.	Stock.	Debentures.	Debentures.	Debentures and Stock.	Debentures and Stock.	Stock.	Stock.	Stock.	Stock.	Stock.	Stock.	Stock.	Debentures.	Debentures.	Treasury Bonds. 3½ %.				Totals.	Plus or Minus.	
	Rate of Interest ..	6 %.	5 %.	4 %.	4 %.	4½ %.	4 %.	4 %.	4 %.	4 %.	4 %.	3½ %.	3½ %.	3½ %.	3 %.	3 %.	3 %.	3 %.	3 %.	3½ %.					
	Year Issued ..	1865-1869.	1869-1872.	1876.	1873-1896.	1879-1880.	1879.	1883.	1884.	1885.	1886-1888.	1889-1891.	1890.	1892.	1902.	1899-1904.	1900-1901.	1902.	1902-1904.						
	Where Issued ..	London.	Melbourne.	London.	Melbourne.	London.	Melbourne.	London.	London.	London.	London.	London.	London.	London.	London.	Melbourne.	Melbourne.	Melbourne.	Melbourne.						
ORIGINAL LOANS.	Cash realized (inclusive of premium) ..	£ 492,705	£ 154,159	£ 553,629	£ 641,703	£ 114,400	£ 277,325	£ 508,380	£ 114,649	£ 186,729	£ 975,000	£ 316,439*	£ 395,499	£ 299,978	£ 282,074	£ 17,000	£ 96,463	£ 40,425	£ 257,989	£ 5,724,546	+				
	Premium .. ..	..	.. 274	..	..	..	..	..	.. 2,314	..	..	..	..	..	..	..	..	..	..	..	.. 2,588	-	
	Discount and Expenses	7,295	..	34,491	447	1,235	..	12,614	..	4,142	..	8,561	4,501	33,355	17,926	16	3,537	3,168	..	131,288	..	+			
	Debentures, Stock, and Treasury Bonds ..	500,000	153,885	588,120	642,150	115,635	277,325	520,994	112,335	190,871	975,000	325,000	400,000	333,333	300,000	17,016	100,000	43,593	257,989	5,853,246	..	Original Loans ..	5,853,246		
		(2,277,115)																							
		now represented by																							
RENEWAL LOANS.	Act	1196.	1296.	1560.	1468.	(a) 1560. (b) 1847.†	1901. Debentures.																		
	Form	Stock.	Debentures.	Stock.	Stock.	(a) Stock. (b) Treasury Bonds.	3 %.																		
	Rate of Interest ..	3½ %.	4 %.	3 %.	3 %.	(a) 3½ %. (b) 4 %.	3 %.																		
	Year Issued ..	1891.	1893.	1901.	1897-1898.	1903.	1904.																		
	Where Issued ..	London.	Melbourne.	London.	Melbourne.	London.	Melbourne.																		
	Cash realized and paid over in Redemption of Original Loan (above)	£ 500,000	£ 153,885	£ 588,120	£ 642,150	£ 114,609	£ 1,026	£ 277,325	70,749	+	Renewal Loans— Increase of Li- ability ..	70,749	
	Discount and Expenses	..	..	59,784	..	10,965	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Liability (Gross) at 30th June, 1904 ..	500,000	153,885	647,904	642,150	125,574	278,351	520,994	112,335	190,871	975,000	325,000	400,000	333,333	300,000	17,016	100,000	43,593	257,989	..	..	..	5,923,995
		(2,347,864)																							

* Includes portion of Act No. 1196 raised for expenditure purposes.
† Will have merged into Act No. 1560 by 31st December, 1905.

PART II. (b).

WATER SUPPLY DEPARTMENT

LOAN EXPENDITURE TO 30th JUNE, 1904.

Water Supply Expenditure to 30th June, 1904, as per Treasurer's Finance Statement, 1903-4, pages 111, 112	£8,803,314
Deduct Yan Yean, i.e., Loan Expenditure by Government on Metropolitan Supply Works prior to handing over to Melbourne and Metropolitan Board of Works	3,142,578
Water Supply Expenditure (exclusive of Yan Yean) as per first column below	<u>£5,660,736</u>

PART II. (c).

WATER SUPPLY DEPARTMENT

30th June, 1904.

LOANS AND REDEMPTION CONTRIBUTIONS.

Shown under Services for which Money raised.

Service.	Cash Expended.	Cash Raised but not yet Expended.	Deduct Premiums on Flotation of Original Loans (proportion).	Add Discount and Expenses on Flotation.		Total Cost to Department.	Redemption Contributions (Paid into Treasury).	Liability of Department.
				Original Loans (proportion).	Renewal Loans (proportion).			
	£	£	£	£	£	£	£	£
Coliban Works*	1,153,946	..	157	23,738	24,104	1,201,631	..	1,201,631
Geelong Works*	441,259	..	405	8,926	5,608	455,388	..	455,388
Goulburn Works*	560,592	..	..	11,051	..	571,643	..	571,643
Loddon Works*†	150,805	..	..	2,790	..	153,595	..	153,595
Kow Swamp Works *	179,261	..	..	8,006	..	187,267	..	187,267
Broken River Works *	14,853	..	..	..	..	14,853	..	14,853
Mallee Works*	134,021	..	..	3,200	..	137,221	..	137,221
North-west Lakes (Kerang) Works*	9,400	..	..	420	..	9,820	..	9,820
Campaspe River (Langwornier Storage-Survey)	1,113	..	..	..	..	1,113	..	1,113
Glenelg River (Moora Moora Storage-Survey)	1,427	..	..	..	..	1,427	..	1,427
Werribee River (Ballance Storage—Land and Survey)	14,857	..	..	..	..	14,857	..	14,857
Avoca River (Repairs to Weirs, &c.)	9,873	..	..	..	..	9,873	..	9,873
Preliminary Surveys.. .. .	26,975	..	..	269	..	27,244	..	27,244
Grants to Bodies (early days)‡	45,154	..	7	1,039	1,119	47,305	..	47,305
Grants for Construction of Headworks—§								
Waterworks Trusts	72,219	..	1,458	..	..	70,761	..	70,761
Irrigation Trusts	24,983	..	505	..	..	24,478	..	24,478
Loddon Works	2,798	..	56	..	..	2,742	..	2,742
Advances to Bodies || .. .. .	2,843,536	..	2,588	59,439	30,831	2,931,218	..	2,931,218
	2,817,200	..	..	70,634	39,918	2,927,752	128,860	2,798,892
Raised, but not yet expended	5,660,736	..	2,588	130,073	70,749	5,858,970	128,860	5,730,110
	..	63,810	..	1,215	..	65,025	..	65,025
	5,724,546		2,588	131,288	70,749	5,923,995	128,860	5,795,135

* For description of Works see Chief Engineer's Report, pages 5-10.

† See also under "Grants for Headworks" below.

‡ For details, see Appendix E. (page 36).

§ £100,000 made to Waterworks Trusts for construction of headworks. Certain of the works were afterwards taken over by Irrigation, &c., Trusts and Loddon National Works, hence the present apportionment.

|| See next page for details and for liability of bodies to Department.

PART II. (d).

WATER SUPPLY DEPARTMENT.

LOANS.—30th JUNE, 1904.

ADVANCES TO BODIES.

Name of Body.	DEPARTMENT'S LIABILITY ON ACCOUNT OF LOANS RAISED.						BODIES' LIABILITY TO DEPARTMENT.*				
	Cost to Department.				Redemption Contributions received from Bodies and paid into Treasury.	Liability at 30th June, 1904.	Advances as per First Column.	Paid to Redemption as per Fifth Column.	Liability.		
	Cash Advanced.	Discount and Expenses on Flotation.		Total.					True Liability (i.e., if no writing off).	But as Act 1825 and Act 1851 wrote off.	The Liability at 30th June, 1904, stood at—
		Original Loans.	Renewal Loans.								
Local Bodies ..	£ 646,053	£ 18,841	£ 36,893	£ 701,787	£ 79,626	£ 622,161	£ 646,053	£ 79,626	£ 566,427	£ 163,759	£ 402,668†
Waterworks Trusts ..	979,615	26,230	3,025	1,008,870	40,794	968,076	979,615	40,794	938,821	169,997	768,824‡
Irrigation, &c., Trusts ..	1,095,291	20,855	..	1,116,146	6,418	1,109,728	1,095,291	6,418	1,088,873	724,777	364,096
Mallee Shires (Tanks) ..	37,541	1,363	..	38,904	2,022	36,882	37,541	2,022	35,519	..	35,519
First Mildura Irrigation Trust	58,700	3,345	..	62,045	..	62,045	58,700	..	58,700	..	58,700
	2,817,200	70,634	39,918	2,927,752	128,860	2,798,892	2,817,200	128,860	2,688,340	1,058,533	1,629,807

* For Details of each Trust or other Body concerned, see Appendix A. (pages 27-31).

† Local Bodies are liable for £41,522, "Capitalized Interest" in addition.

‡ Waterworks Trusts are liable for £6,871, "Capitalized Interest" in addition.

SUMMARY:

Bodies' Liability											£1,629,807
Department bears in addition—											
Discount and Expenses on Original Loans									£70,634		
" " " Renewal Loans									39,918		
										£110,552	
Loan Liability from which Bodies relieved (writing off), but for which State is, of course, responsible to Stock, &c., holders										1,058,533	
											1,169,085
Department's Liability											£2,798,892

PART III. (a).

WATER SUPPLY DEPARTMENT.

LOANS.—30th JUNE, 1904.

LOANS AND RATES OF INTEREST.

Loans Issued and Interest Payable.	Total.	Bearing Interest at—		
		3 per cent.	3½ per cent.	4 per cent.
	£	£	£	£
London	4,431,011	947,904	1,631,397	1,851,710
Redemption deducted	128,860	103,919	24,941	..
	4,302,151	843,985	1,606,456	1,851,710
Melbourne	1,492,984	1,081,110	257,989	153,885
	5,795,135	1,925,095	1,864,445	2,005,595

ANNUAL INTEREST ON ABOVE LOANS.

Where Payable.	Total.	3 per cent.	3½ per cent.	4 per cent.
	£	£	£	£
London	155,614	25,320	56,226	74,068
Melbourne	47,618	32,433	9,030	6,155
	203,232	57,753	65,256	80,223

PART III. (b).

WATER SUPPLY DEPARTMENT.

30th June, 1904

LOANS AND ANNUAL INTEREST.

Shown under Services for which Moneys raised.

Service.	Loan Liability of Department.	Bearing Interest at—			Annual Interest Payable.			
		3 per cent.	3½ per cent.	4 per cent.	3 per cent.	3½ per cent.	4 per cent.	Total.
	£	£	£	£	£	£	£	£
Coliban Works	1,201,631	630,098	359,484	212,049	18,903	12,582	8,482	39,967
Geelong Works	455,388	208,340	125,843	121,205	6,250	4,404	4,848	15,502
Goulburn Works	571,643	22,191	340,868	208,584	666	11,930	8,343	20,939
Loddon Works*	153,595	1,923	80,373	71,299	58	2,813	2,852	5,723
Kow Swamp Works	187,267	20,578	158,769	7,920	617	5,557	317	6,491
Broken River Works	14,853	5,000	..	9,853	150	..	394	544
Mallee Works	137,221	64,279	72,942	..	1,928	2,553	..	4,481
North-west Lakes (Kerang) Works	9,820	8,341	1,479	..	250	52	..	302
Campaspe River (Langworne Storage—Survey)	1,113	..	..	1,113	..	..	44	44
Glenelg River (Moora Moora Storage—Survey)	1,427	..	..	1,427	..	..	57	57
Werribee River (Ballanee Storage—Land and Survey)	14,857	..	..	14,857	..	..	594	594
Avoca River (Repairs to Weirs, &c.)	9,873	..	..	9,873	..	..	395	395
Preliminary Surveys	27,244	..	10,203	17,041	..	357	682	1,039
Grants to Bodies (early days)	47,305	17,671	26,508	3,126	530	928	125	1,583
Grants for Construction of Headworks† —								
Waterworks Trusts	70,761	..	..	70,761	..	..	2,830	2,830
Irrigation Trusts	24,478	..	..	24,478	..	..	980	980
Loddon Works	2,742	..	..	2,742	..	..	109	109
	2,931,218	978,421	1,176,469	776,328	29,352	41,176	31,052	101,580
Advances to Bodies‡	2,798,892	929,881	640,959	1,228,052	27,897	22,434	49,122	99,453
	5,730,110	1,908,302	1,817,428	2,004,380	57,249	63,610	80,174	201,033
Raised, but not yet expended	65,025	16,793	47,017	1,215	504	1,646	49	2,199
	5,795,135	1,925,095	1,864,445	2,005,595	57,753	65,256	80,223	203,232

* See also under "Grants for Headworks," below.

† £100,000 (including £2,019 premium) made to Waterworks Trusts for construction of headworks. Certain of the works were afterwards taken over by Irrigation, &c., Trusts, and Loddon National Works, hence the present apportionment.

‡ See next page for details.

PART III. (c).

WATER SUPPLY DEPARTMENT.

30th June, 1904.

ADVANCES TO BODIES.—LOANS AND ANNUAL INTEREST.*

Name of Body.	ANNUAL INTEREST PAYABLE BY DEPARTMENT ON LIABILITY AT 30TH JUNE, 1904.					ANNUAL INTEREST PAYABLE TO DEPARTMENT BY BODIES ON THEIR LIABILITY AT 30TH JUNE, 1904.					
	Net Liability for Loans Issued (Cost to Department less Redemption Contributions) See page 20.	Bearing Interest at			Annual Interest.	Advanced by Department. See page .	Redemp- tion Con- tributions by Bodies.	Loan Liability.			Annual Interest on Liability to Depart- ment at 30th June, 1904.
		3 per cent.	3½ per cent.	4 per cent.				True Liability on which Interest would be payable if nothing written off.	But as Act 1625 and Act 1651 wrote off—	The Liability on which Interest is payable is—	
Local Bodies ..	£ 622,161	£ 457,598	£ 70,506	£ 94,057	£ 19,958	£ 646,053	£ 79,626	£ 566,427	£ 163,759	£ †402,668	£ 16,106
Waterworks Trusts ..	968,076	176,462	170,517	621,097	36,106	979,615	40,794	938,821	169,997	†768,824	30,753
Irrigation, &c., Trusts ..	1,109,728	207,430	389,400	512,898	40,368	1,095,291	6,418	1,088,873	724,777	†364,096	14,564
Mallee Shires (Tanks) ..	36,882	31,049	5,833	..	1,136	37,541	2,022	35,519	..	‡35,519	1,066
First Mildura Irri- gation Trust	62,045	57,342	4,703	..	1,885	58,700	..	58,700	..	†58,700	2,348
	2,798,892	929,881	640,959	1,228,052	99,453	2,817,200	128,860	2,688,340	1,058,533	1,629,807	64,837

* For interest liability written off in 1899 by Act 1625, see Appendix F (page 37).

† *Bodies*.—Redemption—annual charge of ½ per cent. on principal sum advanced. Interest—4 per cent. on balance of principal outstanding.‡ *Mallee Shires*.—A constant amount of 4 per cent. per annum is charged on principal sum advanced. Of the annual payment, 3 per cent. on balance of principal outstanding is applied as interest, and the balance towards redemption. Five per cent. is charged on arrears.

NOTE.—Interest and redemption are payable half-yearly by all bodies.

(See PART II. (d), page 20—Summary for Explanation of difference between amount on which Department pays interest and that on which Bodies pay interest.)

PART IV. (A) AND (B).

WATER SUPPLY DEPARTMENT.

Year, 1903-4.

LOAN WORKS.

(A) Receipts and Expenditure for year; (B) Area over which Water is supplied free of charge to Irrigation, &c., Trusts, Waterworks Trusts, and Mallee Shires from "Loan Works."

Name.	(A).					(B).*		
	RECEIPTS.	EXPENDITURE.				Water Supplied free of charge to Bodies.		
	Paid into Treasury to Credit of Consolidated Revenue.	Defrayed by Treasury from Consolidated Revenue.				For Irrigation, and Stock and Domestic Purposes.	For Stock and Domestic Purposes.	Total Area served free of Charge.
		Interest on Loans and Expense of Paying same.	Maintenance and Management (including Proportion of Department and Minister).	Pensions and Gratuities.	Total.	To Irrigation Trusts.	To Waterworks Trusts and Mallee Shires.	
					Area Served.	Area Served.		
	£	£	£	£	£	acres.	acres.	acres.
Coliban Works	28,279	40,303	11,299	623	52,225	..	..	..
Geelong Works	13,010	15,627	4,261	353	20,241	..	..	..
Goulburn Works	297	20,762	2,734	..	23,496	569,000†	..	569,000
Loddon Works	13	5,819	554	..	6,373	252,000	397,000	649,000
Kow Swamp Works	145	6,576	2,371	..	8,947	82,000	..	82,000
Broken River Works	6	550	417	..	967	..	573,000	573,000
Mallee Works	66	3,922	4,397	..	8,319	..	3,100,000	3,100,000
North-west Lakes Works	46	301	352	..	653	..	50,000	50,000
Campaspe River (Langwornier Storage) .. ..	..	45	..	..	45	..	..	..
Glenelg River (Moora Moora Storage) .. ..	..	58	..	..	58	..	..	..
Werribee River (Ballance Storage)	85	603	..	..	603	..	..	..
Avoca River (Repairs to Weirs) .. ..	..	401	..	..	401	..	..	..
Preliminary Surveys .. ..	..	1,054	..	..	1,054	..	..	..
Grants to Bodies (in early days) .. ..	..	1,602	..	..	1,602	..	..	..
Grants for Construction of Head-works—								
Waterworks Trusts .. ..	..	2,867	..	..	2,867	..	..	..
Irrigation Trusts .. ..	..	993	..	..	993	..	..	..
Loddon Works .. ..	..	110	..	..	110	..	..	..
	41,947	101,593	26,385	976	128,954			
Advances to Bodies—								
Local Bodies	17,206§	21,677||	136	..	21,813	..	..	..
Waterworks Trusts	33,551§	36,825	921	..	37,746	..	..	..
Irrigation, &c., Trusts	14,997§	40,830	602	..	41,432	..	..	..
Mallee Shires	1,102	1,103	212	..	1,315	..	..	..
First Mildura Irrigation Trust .. ..	..	1,878	10	..	1,888	..	..	..
	108,803	203,906	28,266	976	233,148	..	..	..
Raised, but not yet expended } Interest on	400	1,817	..	..	1,817	..	..	..
	109,203	205,723	28,266	976	234,965	903,000	4,120,000	5,023,000

* For quantity supplied free of charge in 1903-4, see Appendix G (page 38).

† Scheme in course of construction; when completed will command a much greater area.

‡ Includes area of Echuca and Waranga Waterworks Trust, which is practically an Irrigation Trust.

§ Includes a considerable amount of arrears.

|| Includes twelve months' interest on Act No. 608 liability (matured during year), and six months' interest on portion of liability taken up by Act No. 1560—3½ per cent.

(NOTE.—Under the provisions of the Water Act 1890 (No. 1156), Irrigation Trusts drawing supplies from National Works were required to jointly pay interest on cost of construction of the works. Section 103 of Act No. 1651 relieved the Trusts of the charge.)

PART V. (a) AND (b).

WATER SUPPLY DEPARTMENT.

Year, 1903-4.

CONSOLIDATED REVENUE DEFRAID.*(In addition to Interest, Maintenance, &c., as per previous page.)***(A)****INVESTIGATION AND REPORTS ON PROPOSED LOAN WORKS AND
SUPERVISION OF CONSTRUCTION OF LOAN WORKS.**

Expenditure defrayed by Treasury out of Consolidated Revenue during the year.

In connexion with—	Amount.
	£
Coliban Works	606
Geelong Works	220
Goulburn Works	915
Loddon Works	53
Kow Swamp Works	54
Broken River Works	44
Mallee Water Supply Works	646
North-west Lakes	63
Waterworks Trusts	870
Irrigation, &c., Trusts	328
Mallee Shires	96
Local Bodies	123
First Mildura Irrigation Trust	15
	4,033

(B)**EXTENSION OF RETICULATION.**

Expenditure defrayed by Treasury out of Consolidated Revenue during the year on extension of reticulation Coliban and Geelong systems—

	£
Coliban	801
Geelong	402
	1,203

PART VI.

APPENDICES.

PART VI.

APPENDIX A.

WATER SUPPLY DEPARTMENT.

Loan Money.—30th June, 1904.

ADVANCES TO BODIES—LOCAL BODIES.

Name	Original Advances.	Add Liabilities transferred from Other Bodies.	Deduct Liabilities transferred to Waterworks Trusts on Account of Works handed over (see page 32).†	Deduct Liabilities transferred to National Works.	Total Loan Advances.	Deduct Redemption Contributions Paid into Treasury.	LIABILITY TO STATE.		
							True Liability (i.e. if no Writing off).	But as Act 1625 Wrote off—	The Liability at 30th June, 1904, Stood at—
	£	£	£	£	£	£	£	£	£
Arapiles Shire ..	3,600	..	..	..	3,600	767	2,833	..	2,833
Ararat Borough ..	45,500	..	..	..	45,500	841	44,659	18,266	26,393
Ballarat Water Commission ..	309,300	..	..	..	309,300	27,861	281,439	..	281,439*
Beechworth Shire	28,926	..	..	..	28,926	3,549	25,377	5,958	19,419*
Bet Bet Shire ..	1,000	..	..	..	1,000	15	985	985	..
Chiltern Shire ..	4,500	..	..	..	4,500	628	3,872	508	3,364*
Clunes Borough ..	70,195	..	..	..	70,195	176	70,019	62,395	7,624
Creswick Borough	3,500	..	..	..	3,500	3,500	..	..	..
Daylesford Borough	16,000	..	16,000†	..	..	..	..	..	..
Dunmunkle and St. Arnaud Shires ..	5,000	..	..	..	5,000	5,000†	..	..	..
Dunolly Borough ..	2,190	..	..	..	2,190	775	1,415	..	1,415
Hamilton Borough	12,000	..	10,500	..	1,500	1,500	..	..	..
Huntly Shire ..	500	..	..	..	500	500†	..	..	..
Inglewood Borough	5,150	..	..	..	5,150	1,497	3,653	..	3,653
Korong Shire ..	1,564	..	..	..	1,564	375	1,189	..	1,189
Newham Shire ..	5,000	..	3,844	..	1,156	1,156	..	..	..
Ripon (Beaufort) Shire ..	3,000	..	..	..	3,000	1,258	1,742	..	1,742
Rutherglen Borough	3,228	..	3,094	..	134	134	..	..	..
St. Arnaud Borough	12,000	..	11,858†	..	142	142	..	..	..
Stawell Borough ..	108,506	..	..	..	108,506	2,186	106,320	61,661	44,659
Talbot Borough ..	15,000	..	..	..	15,000	36	14,964	13,986	978
Tarnagulla Borough	800	..	..	..	800	130	670	..	670
Wangaratta Borough	6,000	..	..	..	6,000	1,100	4,900	..	4,900
Wimmera Shire ..	28,890	..	..	..	28,890	26,154†	2,736	..	2,736
	691,349	..	45,296	..	646,053	79,280	566,773	163,759	403,014
Add to Redemption Column and deduct from Liability Columns amount paid by Daylesford Borough on account of "Capitalized Interest" and placed to Credit of Loans Redemption Fund ..						+ 346	— 346	..	— 346
	691,349	..	45,296	..	646,053	79,626	566,427	163,759	402,668

* Bodies are liable to State for Capitalized Interest in addition { Ballarat Water Commission .. £39,758
Beechworth Shire 1,256
Chiltern Shire 508
£41,522

† Capitalized Interest also transferred from Daylesford Borough, £2,794; and from St. Arnaud Borough, £4,077.

‡ Consideration money received from Bodies which took over Works, paid into Redemption—
Dunmunkle and St. Arnaud Shires received from Wimmera United Waterworks Trust £4,929
Huntly Shire received from Elmore Waterworks Trust 441
Wimmera Shire received from Wimmera United Waterworks Trust £11,205
Wimmera Shire received from Horsham Borough Waterworks Trust 13,055
£24,260

APPENDIX A—continued.

WATER SUPPLY DEPARTMENT.

Loan Money.—30th June, 1904.

ADVANCES TO BODIES—WATERWORKS TRUSTS.

Name.	Original Advances.	Add Liabilities transferred from Local Bodies and Other Waterworks Trusts on account of Works taken over (see page 32).	Deduct Liabilities transferred to Irrigation, &c., Trusts, and Other Waterworks Trusts on account of Works handed over (see pages 32 and 33).	Deduct Liabilities transferred to National Works Cost of Works handed over (see page 34).	Total Loan Advances.	Deduct Redemption Contributions Paid into Treasury.	LIABILITY TO STATE.		
							True Liability (i.e., if no Writing off).	But as Act 1625 Wrote off—	The Liability at 30th June, 1904, Stood at—
	£	£	£	£	£	£	£	£	£
Alexandra ..	3,359	..	..	..	3,359	59	3,300	..	3,300
Avenel ..	1,684	..	..	..	1,684	125	1,559	..	1,559
Avoca ..	16,186	..	6,617	..	9,569	90	9,479	2,494	6,985
Bacchus Marsh ..	8,000	..	8,000	..	..	..	..	..	..
Ballan ..	1,100	..	..	..	1,100	212	888	..	888
Benalla ..	15,579	..	..	..	15,579	2,472	13,107	..	13,107
Bet Bet Shire ..	5,694	..	..	..	5,694	882	4,812	..	4,812
Birchip ..	..	4,905	..	..	4,905	74	4,831	..	4,831
Boort ..	1,000	150	..	..	1,150	23	1,127	150	977
Borough of Daylesford	8,207	16,000*	..	..	24,207	926	23,281	3,139	20,142*
Bright ..	2,990	..	..	..	2,990	228	2,762	..	2,762
Carisbrook and Majorca ..	849	..	436	..	413	413	..	..	..
Carisbrook ..	7,964	436	..	..	8,400	135	8,265	2,400	5,865
Charlton ..	1,260	6,617	..	..	7,877	22	7,855	887	6,968
Dandenong ..	19,128	..	..	..	19,128	236	18,892	5,128	13,764
Donald ..	1,000	7,166	..	..	8,166	149	8,017	1,166	6,851
Echuca Borough ..	13,150	..	..	..	13,150	1,132	12,018	..	12,018
Elmore ..	4,000	..	..	..	4,000	261	3,739	..	3,739
Euroa ..	17,011	..	..	..	17,011	882	16,129	..	16,129
Gisborne ..	4,668	..	..	..	4,668	770	3,898	..	3,898
Hamilton ..	26,400	10,500	..	..	36,900	613	36,287	..	36,287
Healesville ..	4,661	..	..	..	4,661	386	4,275	..	4,275
Heathcote ..	7,394	..	..	..	7,394	248	7,146	..	7,146
Horsham Borough	17,713	..	..	..	17,713	296	17,417	7,712	9,705
Kerang ..	3,500	500	..	..	4,000	46	3,954	..	3,954
Kerang Shire ..	..	1,200	..	..	1,200	19	1,181	..	1,181
Kilmore ..	14,148	..	..	..	14,148	1,528	12,620	..	12,620
Koroit ..	5,047	..	..	..	5,047	68	4,979	2,047	2,932
Korumburra ..	11,492	..	..	..	11,492	260	11,232	..	11,232
Kowree ..	..	2,707	..	..	2,707	61	2,646	..	2,646
Kyabram ..	507	..	..	..	507	91	416	..	416
Kyneton Shire ..	26,680	..	..	..	26,680	7,538	19,142	..	19,142
Lancefield ..	7,083	..	..	..	7,083	273	6,810	..	6,810
Lawloit ..	..	12,095	..	..	12,095	272	11,823	..	11,823
Lilydale ..	845	..	..	..	845	..	845	..	845
Loddon United ..	45,389	1,275	11,101	13,791	21,772	..	21,772	1,717	20,055
Longwood ..	2,400	..	..	..	2,400	42	2,358	550	1,808
Lowan Shire ..	33,906	..	22,226	..	11,680	265	11,415	..	11,415
Macedon ..	2,600	..	..	..	2,600	122	2,478	..	2,478
Mansfield ..	7,931	..	..	..	7,931	591	7,340	..	7,340
Maryborough ..	76,257	..	..	..	76,257	1,611	74,646	9,200	65,446
Mooroopna ..	3,053	..	..	..	3,053	50	3,003	1,400	1,603
Murchison ..	2,800	..	..	..	2,800	12	2,788	..	2,788
Nagambie ..	2,775	..	..	..	2,775	296	2,479	..	2,479
Carried forward	435,410	63,551	48,380	13,791	436,790	23,779	413,011	37,990	375,021

* Daylesford Borough Waterworks Trust - £2,794. "Capitalized Interest," was transferred to this Trust, in addition to above.

APPENDIX A—continued.

ADVANCES TO BODIES—WATERWORKS TRUSTS—continued.

Name.	Original Advances.	Add Liabilities transferred from Local Bodies and Other Waterworks Trusts on account of Works taken over (see page 32).	Deduct Liabilities transferred to Irrigation, &c., Trusts, and Other Waterworks Trusts on account of Works handed over (see pages 32 and 33).	Deduct Liabilities transferred to National Works Cost of Works handed over (see page 34).	Total Loan Advances.	Deduct Redemption Contributions Paid into Treasury.	LIABILITY TO STATE.		
							True Liability (i.e., if no Writing off).	But as Act 1625 Wrote off—	The Liability at 30th June, 1904, Stood at—
	£	£	£	£	£	£	£	£	£
Brought forward	435,410	63,551	48,380	13,791	436,790	23,779	413,011	37,990	375,021
Nhill	2,644*	7,424	..	..	10,068	169	9,899	2,482	7,417
Omeo	3,979	..	..	..	3,979	276	3,703	..	3,703
Riddell's Creek ..	3,500	..	..	..	3,500	64	3,436	497	2,939
Rochester	1,000	..	..	..	1,000	102	898	..	898
Romsey	4,700	..	..	..	4,700	775	3,925	..	3,925
Rushworth	4,500	..	..	..	4,500	5	4,495	..	4,495
Rutherglen	13,391	3,094	..	..	16,485	301	16,184	..	16,184
Seymour	27,959	..	..	..	27,959	1,035	26,924	..	26,924
Shire of Kara Kara	771	6,667	95	..	7,343	165	7,178	..	7,178
Shire of Numurkah	32,437	4,303	9,298	4,700†	22,742	1,950	20,792	1,376‡	19,416
Shire of Shepparton	15,500	7,048	..	5,000†	17,548	800	16,748	1,376‡	15,372
Shire of Stawell ..	1,370	..	..	..	1,370	1,120	250	250	..
Shire of Tungamah	29,073	..	12,082	4,750†	12,241	303	11,938	..†	11,938
Shire of Winchelsea	3,922	..	..	..	3,922	88	3,834	..	3,834
Shepparton Urban	15,126	2,417	..	..	17,543	1,059	16,484	2,416	14,068
St. Arnaud Borough	28,769	11,953‡	..	..	40,722	546	40,176	15,077	25,099‡
St. Arnaud Shire ..	30,956	..	23,470	..	7,486	887	6,599	..	6,599
Swan Hill	2,688	1,300	..	..	3,988	38	3,950	..	3,950
Swan Hill Shire ..	51,210§	..	14,254	913	36,043	..	36,043	36,043	..
Tatura	2,847	..	..	..	2,847	227	2,620	650	1,970
United Echuca and Waranga	125,795	..	55,426	..	70,369	1,445	68,924	34,748	34,176
Upper Macedon ..	1,300	..	..	..	1,300	263	1,037	..	1,037
Violet Town	2,850	..	..	..	2,850	91	2,759	..	2,759
Warracknabeal ..	2,348	1,769	..	..	4,117	357	3,760	..	3,760
Warrnambool	38,500	..	..	..	38,500	926	37,574	..	37,574
Wimmera Shire ..	56,391	..	56,391	..	..	..	..	..	..
Wimmera United ..	211,346	3,508	72,142	..	142,712	161	142,551	36,392	106,159
Wodonga	7,722	..	..	..	7,722	..	7,722	..	7,722
Woodend	3,819	3,844	..	..	7,663	1,981	5,682	..	5,682
Wycheproof	600	8,390	..	..	8,990	698	8,292	700	7,592
Yarrawonga Urban	1,188	7,612	..	..	8,800	1,166	7,634	..	7,634
Yea	3,816	..	..	..	3,816	17	3,799	..	3,799
	1,167,427	132,880	291,538	29,154	979,615	40,794	938,821	169,997	768,824

* Nhill—£2,744 advanced originally but £100 not required was repaid.

† Shire of Numurkah Waterworks Trust £4,700

Shire of Tungamah Waterworks Trust 4,700

£9,450, cost of Casey's Weir.

Shire of Shepparton Waterworks Trust £5,000, cost of Gowangardie Weir.

The above were included in the amounts written off from the Trusts under Act No. 1625, but as the Weirs were afterwards taken over as National Works (Act 1651, Section 104, and Second Schedule), the amounts have been placed in the Liabilities transferred to National Works column.

‡ St. Arnaud Borough Waterworks Trust—£4,077, "Capitalized Interest," transferred to this Trust in addition to above.

§ Swan Hill Shire—£51,296 8s. 2d. advanced originally, but £86 15s. 6d. not required was repaid.

|| Transferred to other Waterworks Trusts (see page 32) £87,583 14 9

,, Irrigation, &c., Trusts (see page 33) 203,954 4 7

£291,537 19 4

PART VI.

APPENDIX A—continued.

WATER SUPPLY DEPARTMENT

Loan Money.—30th June, 1904.

ADVANCES TO BODIES—IRRIGATION, ETC., TRUSTS.

Name.	Original Advances.	Add Liabilities transferred from Waterworks Trusts and Other Irrigation, &c., Trusts on account of Works taken over (see page 33).	Deduct Liabilities transferred to Other Irrigation, &c., Trusts on account of Works handed over (see page 33).	Deduct Liabilities transferred to National Works on account of Works handed over (see page 34).	Total Loan Advances.	Deduct Redemption Contributions paid into Treasury.	LIABILITY TO STATE.		
							True Liability (i.e., if no Writing off).	But as Acts 1625 and 1651 Wrote off—	The Liability at 30th June, 1904, stood at—
	£	£	£	£	£	£	£	£	£
Benjeroop and Mur-rabit	12,936	..	..	..	12,936	64	12,872	7,200	5,672
Bairnsdale	31,439	..	..	..	31,439	180	31,259	23,439	7,820
Bacchus Marsh	5,906	8,000	..	..	13,906	160	13,746	8,906	4,840
Boort East	20,977	590	..	..	21,567	142	21,425	14,866	6,559
Boort North	5,732	1,246	..	..	6,978	31	6,947	4,867	2,080
Campaspe	62,000	..	..	..	62,000	203	61,797	52,685	9,112
Carrum	25,732	..	..	..	25,732	50	25,682	7,732	17,950
Cohuna	149,330	1,883	..	..	151,213	512	150,701	93,968	56,733
Dookie	630	..	..	..	630	..	630	630	..
Dry Lake	1,100	604	..	..	1,704	275	1,429	686	743
Emu Valley	8,166	..	..	..	8,166	..	8,166	8,166	..
Gunbower West	5,889	..	..	..	5,889	..	5,889	..	5,889
Harcourt	1,142	..	..	..	1,142	30	1,112	1,112	..
Kerang East	12,564	1,461	..	..	14,025	18	14,007	6,984	7,023
Koondrook and Myall	14,026	..	..	..	14,026	34	13,992	12,080	1,912
Leaghur and Meering	4,445	598	..	..	5,043	59	4,984	2,543	2,441
Lerderberg	447	..	..	..	447	..	447	447	..
Macorna North	4,883	14,373	699	..	18,557	..	18,557	8,082	10,475
Marquis Hill	12,997	1,480	..	..	14,477	2	14,475	9,076	5,399
Millewa	973	..	..	..	973	..	973	..	973
Pine Hills	679	1,372	..	..	2,051	..	2,051	2,051	..
Rodney	167,372	55,426	..	..	222,798	2,153	220,645	149,949	70,696
South Kerang	77	556	..	..	633	5	628	..	628
Swan Hill	24,800	..	..	..	24,800	19	24,781	19,799	4,982
Torrumberry North	12,300	..	..	..	12,300	..	12,300	6,300	6,000
Tragowel Plains	167,846	9,849	14,637	3,209	159,849	144	159,405	124,534	34,871
Twelve Mile	4,750	300	..	..	5,050	14	5,036	3,250	1,786
Wandella	28,800	2,503	549	..	30,754	105	30,649	20,929	9,720
Werribee	6,000	..	..	..	6,000	..	6,000	..	6,000
Western Wimmera	94,345	119,599	..	..	213,944	1,814	212,130	132,835	79,295
Yatchaw	6,262	..	..	..	6,262	104	6,158	1,661	4,497
	894,545	219,840	15,885	3,209	1,095,291	6,418	1,088,873	724,777	364,096

PART VI.

APPENDIX A—continued.

WATER SUPPLY DEPARTMENT.

Loan Money.—30th June, 1904.

ADVANCES TO BODIES—MALLEE SHIRES.

Name.	Loan Advances.	Deduct Redemption Contributions Paid into Treasury.	Liability to State at 30th June, 1904.
	£	£	£
Birchip	2,669	160	2,509
Borong	9,059	600	8,459
Dimboola	2,566	178	2,388
Karkaroc	14,602	524	14,078
Kerang	2,313	95	2,218
Swan Hill (formerly Castle Donnington)	3,887	306	3,581
Wycheproof	2,445	159	2,286
	37,541	2,022	35,519

ADVANCES TO BODIES—FIRST MILDURA IRRIGATION TRUST.

Loan Advances	£58,700
Redemption Fund Contributions	Nil
Liability to State at 30th June, 1904	£58,700

PART VI.

APPENDIX B.

WATER SUPPLY DEPARTMENT.

30th June, 1904.

TRANSFER OF LIABILITIES.

STATEMENT of Liabilities transferred to date to Waterworks Trusts from other Waterworks Trusts and from "Local Bodies."

Form of Liability taken over.		Waterworks Trusts charged	Waterworks Trusts and Local Bodies Relieved.	Form of Liability handed over by—		
To State For "Loan" Advances.	To State For "Capitalized Interest."			Waterworks Trusts.	Local Bodies.	
				To State for "Loan" Advances.	To State for "Loan" Advances.	To State for "Capitalized Interest."
£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.	
6,617 0 0	..	Charlton ..	Avoca Waterworks Trust	6,617 0 0	..	..
150 0 0	..	Boort ..	Loddon United Waterworks Trust	150 0 0	..	..
436 0 0	..	Carisbrook ..	Carisbrook and Majorca Waterworks Trust	436 0 0	..	..
94 11 5	..	St. Arnaud Borough	Kara Kara Shire Waterworks Trust	94 11 5	..	..
7,424 2 1	..	Nhill ..	Lowan Shire Waterworks Trust	22,226 7 7	..	..
12,095 2 11	..	Lawloit ..				
2,707 2 7	..	Kowree ..				
2,416 12 5	..	Shepparton Urban	Numurkah Shire Waterworks Trust	9,297 12 5	..	..
6,881 0 0	..	Shepparton Shire				
6,666 13 4	..	Kara Kara	St. Arnaud Shire Waterworks Trust	23,470 7 4	..	..
3,507 15 4	..	Wimmera United				
8,390 9 11	..	Wycheproof				
4,905 8 9	..	Birchip ..	Swan Hill Shire Waterworks Trust	1,274 13 1	..	..
1,274 13 1	..	Loddon United ..				
167 0 0	..	Shepparton Shire	Shire of Tungamah Waterworks Trust	12,082 8 1	..	..
7,612 2 6	..	Yarrowonga Urban				
3,346 3 3	..	Shire of Numurkah				
957 2 4	..	Shire of Numurkah				
1,768 11 0	..	Warracknabeal	Wimmera United Waterworks Trust	8,934 14 10	..	..
7,166 3 10	..	Donald ..				
16,000 0 0	2,793 9 6	Borough of Daylesford	Daylesford Borough Council	..	16,000 0 0	2,793 9 6
10,500 8 2	..	Hamilton ..	Hamilton Borough Council	..	10,500 8 2	..
3,094 2 10	..	Rutherglen ..	Rutherglen Borough—Council	..	3,094 2 10	..
11,858 0 5	4,077 7 3	St. Arnaud Borough	St. Arnaud Borough Council	..	11,858 0 5	4,077 7 3
3,843 14 1	..	Woodend ..	Newham Shire Council	..	3,843 14 1	..
500 0 0	..	Kerang ..	Swan Hill Shire Waterworks Trust	3,000 0 0	..	..
1,200 0 0	..	Kerang Shire				
1,300 0 0	..	Swan Hill				
132,880 0 3	6,870 16 9	..	..	87,583 14 9	45,296 5 6	6,870 16 9

PART VI.

APPENDIX B—*continued.*

WATER SUPPLY DEPARTMENT.

30th June, 1904.

TRANSFER OF LIABILITIES.

Statement of Liabilities transferred to date to Irrigation and Water Supply Trusts from other Irrigation &c., Trusts, and from Waterworks Trusts.

Liability taken over To State— For "Loan" Advances.	Irrigation, &c., Trust Charged.	Irrigation Trusts and Waterworks Trusts relieved.	Liabilities handed over by—	
			Irrigation, &c., Trusts.	Waterworks Trusts.
£ s. d.			£ s. d.	£ s. d.
343 19 9	Dry Lake ..	Tragowel Plains Irrigation Trust	14,637 13 2	..
18 5 11	Kerang East ..			
14,275 7 6	Macorna North ..			
549 4 0	Leaghur and Meering ..	Wandella Irrigation Trust..	549 4 0	..
589 14 0	Boort East ..	Loddon United Waterworks Trust	..	10,951 0 3
9,115 4 1	Tragowel Plains ..			
1,246 2 2	Boort North ..	United Echuca and Waranga Waterworks Trust	..	55,425 18 8
605 15 9	Rodney ..			
54,820 2 11	Rodney ..	Swan Hill Shire Waterworks Trust	..	9,978 15 1
1,882 17 1	Cohuna ..			
733 17 6	Tragowel Plains ..			
300 4 8	Twelve-Mile ..			
1,479 10 8	Marquis Hill ..			
2,503 8 6	Wandella ..			
1,036 1 11	Pine Hills ..			
335 12 2	Pine Hills ..			
49 4 5	Leaghur and Meering ..			
1,089 17 5	Kerang East ..			
353 0 6	Kerang East ..	Bacchus Marsh Waterworks Trust	..	8,000 0 0
117 0 3	Dry Lake ..			
98 0 0	Macorna North ..	Wimmera United Water- works Trust	..	63,207 7 2
8,000 0 0	Bacchus Marsh ..			
63,207 7 2	Western Wimmera ..	Wimmera Shire Waterworks Trust	..	56,391 3 5
56,391 3 5	Western Wimmera ..	Macorna North Irrigation, &c., Trust	698 13 3	..
555 13 3	South Kerang ..			
143 0 0	Dry Lake ..			
219,839 15 0	15,885 10 5	203,954 4 7

PART VI.

APPENDIX C.

WATER SUPPLY DEPARTMENT.

30th June, 1904.

TRANSFER OF LIABILITIES.

Statement of Liabilities transferred to certain "Loan Works" on account of Weirs taken over from certain Waterworks Trusts and Irrigation, &c., Trusts.

Liability taken over.	Weirs.	Works Charged.	Trusts Relieved.	Cost of Works handed over by—	
				Waterworks Trusts.	Irrigation Trusts.
£ s. d.				£ s. d.	£ s. d.
17,000 0 0	{ Bridgewater and Kinypaniel	} Loddon Works	{ Loddon United Waterworks Trust	13,790 18 7	..
			{ Tragowel Plains Irrigation Trust	..	3,209 1 5
9,450 0 0	Casey's ..	} Broken River Works	{ Shire of Numurkah Waterworks Trust	4,700 0 0	..
5,000 0 0	Gowangardie ..		{ Shire of Tungamah Waterworks Trust	4,750 0 0	..
			{ Shire of Shepparton Waterworks Trust	5,000 0 0	..
913 4 6	Kerang ..	North-West Lakes Works	Swan Hill Shire Waterworks Trust	*913 4 6	..
32,363 4 6	..	..	..	29,154 3 1	3,209 1 5

* Part Cost.

PART VI.

APPENDIX D.

WATER SUPPLY DEPARTMENT.

30th June, 1904.

GRANTS FROM LOAN FUNDS FOR CONSTRUCTION OF HEADWORKS.

(Act No. 760—First Schedule.—Item 3.)

As originally Distributed.		But owing to Transfer of Works the Apportionment at 30th June, 1904, stood thus—					
Waterworks Trusts.	Amount.	Waterworks Trusts.*		Irrigation, &c., Trusts.*		"Works."	
		Name.	Amount.	Name.	Amount.	Name.	Amount.
	£		£		£		£
Avoca	4,502	Avoca	2,662	Boort East ..	112		
Bet Bet Shire ..	1,384	Bet Bet Shire ..	1,384	Boort North ..	238		
Donald	2,000	Boort	28	Cohuna	334		
Kara Kara Shire	467	Birchip	819	Dry Lake	20		
Loddon United ..	8,650	Charlton	1,840	Kerang East ..	256		
Lowan Shire ..	3,651	Donald	3,058	Leaghur and Mee- ring	8		
Shire of Numurkah	298	Kara Kara Shire	1,522	Marquis Hill ...	262	Loddon Works	2,798
Shire of St. Arnaud	5,607	Kerang Shire ..	213	Macorna North	18		
Shire of Stawell ..	545	Kerang	88	Pine Hills	243		
Swan Hill Shire ..	9,110	Kowree	292	Rodney	11,789		
United Echuca and Waranga	26,757	Loddon United	4,122	Tragowel Plains	1,871		
Wimmera United	29,888	Lowan Shire ..	1,258	Twelve Mile ..	53		
Yarrawonga Shire (now Tungamah Shire)	7,141	Lawloit	1,302	Wandella	444		
		Nhill	799	Western Wimmera	9,335		
		Swan Hill Shire	6,421				
		Swan Hill	231				
		St. Arnaud Borough	57				
		St. Arnaud Shire	1,691				
		Shepparton Ur- ban	24				
		Shire of Numur- kah	1,278				
		Shire of Sheppar- ton	110				
		Shire of Stawell	545				
		Shire of Tunga- mah	4,130				
		United Echuca and Waranga	14,968				
		Wimmera United	19,818				
		Warracknabeal	262				
		Wycheproof ..	1,400				
		Yarrawonga Ur- ban	1,897				
			72,219		24,983		2,798
	100,000				100,000		

* The names of Bodies are in alphabetical order, not against Trusts from which the transfers were made.

PART VI.

APPENDIX E.

WATER SUPPLY DEPARTMENT.

30th June, 1904.

GRANTS FROM LOAN FUNDS TO LOCAL BODIES IN EARLY DAYS.

Place.	Amount.		
	£	s.	d.
Ararat	262	1	10
Bacchus Marsh	5,642	4	0
Carngham	15	16	8
Clunes	13,696	14	2
Daylesford	4,165	1	0
Echuca	3,863	18	0
Hamilton	195	19	0
Heathcote	461	7	2
Maryborough	6,097	16	2
Ovens	7,204	13	6
Raywood	1,382	6	9
Sebastopol	3	10	0
Smythesdale	1,936	13	1
Walhalla	23	14	5
Wallan Wallan	202	9	2
	45,154	4	11

PART VI.

APPENDIX G.

WATER SUPPLY DEPARTMENT.

Year 1903-4.

RETURN OF WATER SUPPLIED TO BODIES FREE OF CHARGE FROM "LOAN WORKS"
CONTROLLED BY DEPARTMENT.

"Loan Works."	Water Supplied Free.		
	For Irrigation, and for Stock and Domestic Purposes.	For Stock and Domestic Purposes.	Total.
	To Irrigation, &c., Trusts.	To Waterworks Trusts and Mallee Shires.	
	Cubic Feet.	Cubic Feet.	Cubic Feet.
Goulburn	3,210,000,000	..	3,210,000,000
Loddon	8,860,000,000	330,000,000	9,190,000,000
Kow Swamp	1,950,000,000	1,300,000,000*	3,250,000,000
Broken River .. .. .	..	1,830,000,000	1,830,000,000
Mallee .. .. .	..	1,200,000,000	1,200,000,000
North-West Lakes .. .. .	..	1,930,000,000†	1,930,000,000
	14,020,000,000	6,590,000,000	20,610,000,000






* Supplied to North-West Lakes Works for distribution.

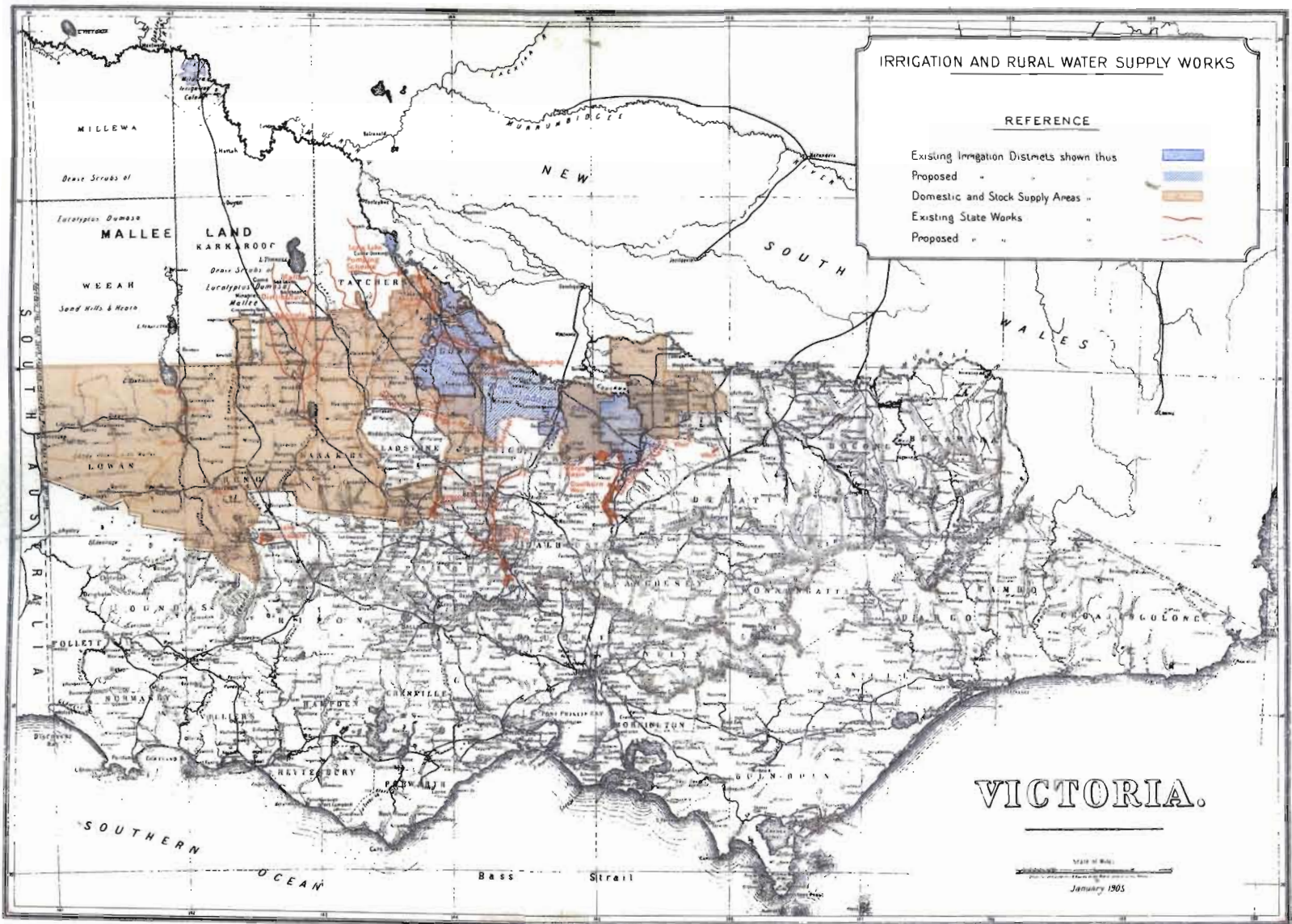
† Exclusive of the 1,300,000,000 cubic feet obtained from Kow Swamp Works.

NOTE.—Diversion from the Goulburn are made principally during the summer months, and are confined to the actual volumes required. In the case of the Loddon by far the greater part of the diversions takes place during high river period, practically the whole flow of the river being diverted, except during high floods.

IRRIGATION AND RURAL WATER SUPPLY WORKS

REFERENCE

- Existing Irrigation Districts shown thus 
- Proposed " " 
- Domestic and Stock Supply Areas " " 
- Existing State Works " " 
- Proposed " " 



VICTORIA.

Scale of Miles
 0 10 20 30 40 50
 January 1905