

1936.

VICTORIA

STATE RIVERS AND WATER SUPPLY COMMISSION.

THIRTY-FIRST
ANNUAL REPORT,
1935-36.

PRESENTED TO BOTH HOUSES OF PARLIAMENT PURSUANT TO THE PROVISIONS OF THE
WATER ACT 1928.

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STATE RIVERS AND WATER SUPPLY COMMISSION.

ANNUAL REPORT, 1935-36.

In compliance with the provisions of the *Water Act* 1928, the State Rivers and Water Supply Commission submits the following Report and Statement for the Financial Year 1935-36, and Estimates for the ensuing year.

The personnel of the Commission during the year was as follows :—

MR. R. H. HORSFIELD, M.Inst.C.E. (London), M.I.E. (Aust.) ; Chairman.

MR. W. TREVEAN ; Commissioner.

MR. L. R. EAST, M.C.E., M.Inst.C.E. (London), M.Am.Soc. C.E., M.I.E. (Aust.) ; Commissioner.

DEATH OF CHAIRMAN.

With deep regret the Commission records the death on 8th October, 1936, of Richard Henry Horsfield, Esquire, M.Inst.C.E. (London), M.I.E. (Aust.), Chairman of the Commission.

Mr. Horsfield joined the staff of the Commission as an Engineer in 1908 and was connected with the construction of many of the major works of the irrigation and water supply systems of the State. In 1923 Mr. Horsfield resigned to take a position as a Commissioner on the Irrigation Commission of South Australia, and, after serving in that capacity for three years, was appointed on 1st September, 1926, by the Victorian Government to the position of Commissioner on the State Rivers and Water Supply Commission. After acting as Chairman following the death of Mr. William Cattanach in 1932, Mr. Horsfield was appointed Chairman of the Commission on 1st March, 1933, and held that position up to the time of his death. As an Officer, Member, and Chairman of the Commission and as Victorian Representative on the River Murray Commission, Mr. Horsfield rendered very valuable services to the State, and by his death the State has suffered a very severe loss.

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ROYAL COMMISSION ON WATER SUPPLY.

A Royal Commission to inquire into the Expediency of Amending the *Water Act* 1928 and other matters was appointed on 24th January, 1936.

The members of that Commission are :—

D. J. McClelland, Esquire, M.C.E. (Melbourne), M.Inst. C.E. (London), Chairman ;
 A. A. Fitzgerald, Esquire, B.Com., F.C.A. (Aust.) ;
 G. S. Greenwood, Esquire ; and
 J. J. Hall, Esquire.

The Terms of the Reference are as follows :—

“ WHEREAS the Governor of the State of Victoria in the Commonwealth of Australia with the advice of the Executive Council of such State, having regard to the great national value of the water works, irrigation, drainage and reclamation systems administered by the State Rivers and Water Supply Commission and the necessity for maintaining effective settlement in the rural areas served by such systems and having regard to the present economic factors adversely affecting the farming community settled on such areas in Victoria situate in Waterworks Districts, Irrigation and Water Supply Districts (other than Urban Divisions of such Districts) and in Flood Protection Districts, hath deemed it expedient that a Commission should forthwith issue to inquire into and report upon :—

1. Whether it is expedient to amend the *Water Act* 1928 in the direction of :—

- (a) (i) Writing off the whole or part of the liability standing in the accounts of the State Rivers and Water Supply Commission in respect of any work or works or in respect of any vanished or depreciated asset or assets ;
- (ii) Transferring from the accounts of the State Rivers and Water Supply Commission any and what amount of the total liability on account of undertakings administered by the said Commission having regard to the value of such undertakings to the Community generally ;
- (iii) Adding to the number of free head-works described in the Second Schedule to the *Water Act* 1928 and if so what head-works ;
- (b) Altering the incidence and amount of the domestic and stock rates ;
- (c) Otherwise amending the provisions of the *Water Act* 1928 :

for the purpose of adjusting where necessary on a fairer and more equitable basis the present water rates and charges payable in the various districts contained in such areas.

- 2. Whether in addition to any relief recommended pursuant to the foregoing paragraph the financial position of primary producers in any and which such areas should be alleviated in any and what manner in respect of water rates and charges including arrears and interest thereon.
 - 3. Whether the cost of drainage and/or reclamation works should be borne by the State or by the land owners within the area served or by both and if by both in what proportions.
 - 4. Whether the present administrative and executive control by the State Rivers and Water Supply Commission and its officers is efficient and economical and if not what improvements are recommended in respect thereof.
 - 5. (a) Whether the works of water supply, irrigation, reclamation and drainage administered by the State Rivers and Water Supply Commission are reasonably efficient, and if not in what respect can they be improved.
 - (b) Whether the best use is being made of the existing systems of water supply, irrigation, reclamation and drainage and of the material assets associated therewith.”
-

The Royal Commission has made inspections of the extensive water supply works in the numerous Irrigation and Water Supply, Waterworks, and Flood Protection Districts controlled by the State Rivers and Water Supply Commission and has taken evidence from many witnesses in the main centres. Progress Reports of the Royal Commission have been issued and the Inquiry is proceeding.

ANNUAL REPORT

OF

THE STATE RIVERS AND WATER SUPPLY COMMISSION

FOR

YEAR ENDED 30TH JUNE, 1936.

PART I.—SUMMARY OF REPORT.

GENERAL.

- | | |
|--|------|
| 1. The State Rivers and Water Supply Commission was constituted on 1st May, 1906, under the provisions of the "Water Act 1905". | |
| 2. This Report covers the period 1st July, 1935, to 30th June, 1936. | Page |
| 3. Reference is made in a special statement, preceding this summary, to the appointment and terms of reference of a Royal Commission to inquire into the expediency of amending the "Water Act 1928" and other matters | 5 |

WATER SUPPLY.

- | | |
|--|----|
| 4. The total capacity of water storages controlled by the Commission amounted to 1,887,100 acre feet | 20 |
| 5. The total net annual valuation of properties within irrigation and water supply, and waterworks districts and the urban divisions thereof, including Coliban System, amounted to £3,186,277 | 33 |
| 6. The population dependent upon the works of the Commission for domestic supplies was 223,708 | 33 |
| 7. The total area of lands supplied with water for domestic and stock purposes by channels, tanks, and bores was 15,063,000 acres | 23 |
| 8. The total area irrigated during the year was 495,835 acres | 27 |
| 9. The quantity of water delivered to water users in irrigation districts was 507,430 acre feet of which 57,726 acre feet were supplied by pumping | 23 |
| 10. Although there were heavy rains during the irrigation season, 83½ per cent. of water rights was used in gravitation districts and 97 per cent. in districts supplied by pumping | 23 |

IRRIGATION WORKS.

- | | |
|--|----|
| 11. During the year grants amounting to £37,304 from Unemployment Relief Funds were expended on the reconditioning of channels and structures installed many years ago by the old Trusts and urgently requiring attention. A considerable extension of this very valuable work is required and would effect marked improvement in the efficiency of water distribution | 35 |
| 12. The construction of the main canal from Yarrawonga to the proposed Murray Valley District is proceeding and excavation totalling 580,000 cubic yards was completed during the year. The capacity of this canal will be 1,000 cusecs with provision for future enlargement to 1,350 cusecs | 16 |

URBAN SUPPLY WORKS.

- | | |
|---|-------------|
| 13. There are at present 107 country towns whose reticulated water supply systems are directly controlled by the Commission | |
| 14. Improvements to pipe reticulations were carried out in the Coliban System at Eaglehawk at a cost of £12,000 | 13 |
| 15. Proposals for the improvement of the Coliban System at a cost of £200,000 were referred by the Government to the Public Works Committee | 13 |
| 16. Following upon a grant of £91,000 from Unemployment Relief Funds towards scheme estimated to cost £310,000, works were put in hand for supply of Western District towns of Camperdown, Terang, and Warrnambool from the Otway Ranges | 16 |
| 17. The Government, after inquiry and recommendation by the Public Works Committee, approved of a grant of £55,000 towards total cost of £160,000 of extending the Mornington Peninsula Water Supply Scheme to Dromana, Rosebud, Sorrento, and Portsea, and work has been commenced | 16 |
| 18. In the urban districts of Berriwillock, Beulah, Dimboola, Hopetoun, Jeparit, Rainbow, Rupanyup, Leitchville, and Koondrook, improvements were carried out to meet increasing demands and provide improved water supplies | 15, 10 & 11 |

WATERWORKS DISTRICTS.

- | | |
|--|---------|
| 19. Water supplies for domestic and stock purposes were distributed to the 11,000 square miles of the Wimmera and Mallee through some 6,319 miles of Commission's channels | 14 |
| 20. The cost of cleaning sand drift from channels was much greater than it would have been if control of fallowing had been possible. In connexion with these Districts a sum of £37,793 was expended from Unemployment Relief Funds in addition to ordinary maintenance votes | 14 & 35 |

MAJOR WORKS.

- | | |
|---|----|
| 21. The Hume Dam has been practically completed and now stores 1,250,000 acre feet. The total cost of this work to date has been £5,511,786 which is shared in equal proportions between the Commonwealth and the three riparian States, New South Wales, Victoria, and South Australia | 18 |
|---|----|

22. The construction of the Yarrawonga Weir is proceeding, the expenditure to date being £155,133. Negotiations with Road Authorities are in hand with a view to the provision of a roadway and bridge across the structure for stock traffic between the two States	Page 18
23. During the year work was put in hand for the installation of spillway gates at Melton Dam to raise the full supply level of the storage and increase its capacity from 17,000 to 19,100 acre feet ..	19
24. The Eildon Weir remedial measures were completed during the year, and an inspection was made by the Inquiry Board which reported that the structure was now efficient for the purpose for which it was designed, i.e., to provide a storage of 306,000 acre feet	19

DRAINAGE WORKS.

25. Five large mechanical excavators have worked throughout the year in the Kooweerup and Cardinia Flood Protection Districts on provision of additional drainage facilities to these districts	21
26. Important improvements were also effected to the drainage works of the Carrum Trust ..	21
27. The Barr Creek improvements and the Kerang East Drainage works carried out with Unemployment Relief Funds are approaching completion, and a drainage rate for maintenance purposes will shortly be imposed	11
28. Drainage works were also continued in the Rodney, Shepparton, Tongala, Stanhope, and Rochester Districts	8-9
29. The installation of comprehensive sub-surface drainage systems at Red Cliffs, Merbein, and Mildura is well advanced, the work at Mildura being carried out by the State Rivers and Water Supply Commission on behalf of the First Mildura Irrigation Trust	11-12

RIVERS AND STREAMS.

30. During the year grants totalling £30,000 from Unemployment Relief Funds were, with the co-operation of Municipal Councils, expended on the systematic snagging of rivers most urgently requiring attention	22
31. Special attention is drawn to the erosion problem and to the necessity for action to safeguard and conserve the State's catchment areas and river resources	24-25
32. The Commission maintains and operates 40 gauging stations for the recording of the flow of the more important streams throughout the State	23
33. One thousand six hundred and fifty-nine permits and licences were in operation during the year authorizing private individuals and companies to divert water from natural sources of supply for various purposes	23

COUNTRY SEWERAGE.

34. For the purpose of installing and controlling sewerage systems in country towns, twenty Sewerage Authorities have now been constituted and applications for the constitution of further authorities are being examined	26
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FINANCE.

35. The Loan Liability of the State for works of water supply and drainage at 30th June, 1936, was £24,970,619	49
36. The total Interest Charges for 1935-36, including £100,931 exchange on overseas payment, on this liability was £1,132,286	49
37. All Rates in respect of Domestic and Stock supplies in Irrigation and Waterworks Districts were, during the year, reduced by 10 per cent. by Government direction	30
38. The total receipts for the financial year 1935-36 amounted to £525,340, an increase of £53,101 over the previous year, and the total expenditure from Vote was £308,579, leaving after providing £500 for depreciation £216,261 available to meet interest charges	38
39. In addition to the above, the sum of £83,106 was paid to the Treasury by Waterworks Trusts and local Water Authorities as interest on loans	49
40. The total amount available to meet interest and exchange was, therefore, £299,367, leaving £845,080, to be borne by the Treasury as the gross deficiency on Water Supply Undertakings	37
41. Of this amount of £845,080 borne by the Treasury, £55,590 represented interest on capital written off 37 years ago, £60,311 represented interest on cost of free headworks, and £117,309 represented interest on liability in respect of River Murray Works	37
42. The cost during the year of non-revenue producing services of a National character was £13,221	38
43. The deficiency on expenditure chargeable to the Commission was, therefore, £189,076, of which £265,804 represents interest on cost of main supply works not at present debited to districts ..	37
44. As pointed out in this Report the above figures do not include adequate provision for depreciation of perishable assets	35
45. The total expenditure during the year on maintenance and administration of Water Supply and Drainage Works was £387,629, of which £308,579 was provided from Vote Funds, and £79,050 from Unemployment Relief Funds	36
46. The total expenditure on capital works was £647,712, of which £275,846 was from Loan and £371,866 from Unemployment Relief Funds	36
47. The total expenditure from Unemployment Relief Funds from 1st June, 1930, to 30th June, 1936, was £1,496,000	44

MAP AND STATISTICS.

48. A map of Victoria showing water supply undertakings and a statistical summary relating to water supply are attached to this Report	—
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PART II.—**WORKS CARRIED ON OR COMPLETED DURING THE YEAR.**

The main works carried out by the Commission during the year and the chief items of interest in each of the Districts controlled by the Commission are set out in the following pages.

IRRIGATION AND WATER SUPPLY DISTRICTS.**GOULBURN AND GIPPSLAND DIVISION.****RODNEY DISTRICT.**

For the supply of water for irrigation in this District there are 639 miles of channels in addition to 45 miles of drainage channels. Owing to the abnormally dry weather conditions experienced in the latter half of the irrigation season, 5,000 acre feet more water than in the previous year were delivered to irrigators, the total quantity being 61,477 acre feet.

With a grant of £3,000 from Unemployment Relief Funds a programme of urgent works designed to improve the irrigation system of the district was carried out during the year. Distributary channels were remodelled, outlet facilities increased and regulators renewed where required. Channels with banks subject to leaks were cored with pre-cast concrete slabs, and this method has been found very effective in dealing with damage caused by crayfish.

On the Cussen and Western Main Channels five new reinforced concrete regulators were constructed to replace old timber structures decayed beyond repair.

A new channel was constructed to supply an area adjacent to the township of Undera. An increased water supply was made available to the Kyabram Cannery and the lands to the west thereof by the enlargement of the syphon under the railway line. Renewal of several culverts over channels crossing roads vested in the Country Roads Board has been carried out, the Board providing a proportion of the cost. The lowering of the Minter Channel Offtake from the Goulburn Waranga Main Channel has enabled supplies to be diverted when there is a limited flow of water in the main channel.

The district drainage system was further extended towards Kyabram and Lancaster, and now affords drainage for portion of the fruit growing area at Lancaster. The principal work in this system has been the construction of the Rodney Main Outfall Drain. The works have been delayed by lack of funds, and it is essential for the district that sufficient funds be made available so that this work can be completed as early as possible.

SHEPPARTON CENTRE.

Districts controlled from this centre are Shepparton, Katandra, North Shepparton, and South Shepparton, in which there are 304 miles of irrigation channels and 185 miles of drainage channels. The total water rights apportioned to lands in the Shepparton and South Shepparton Districts amount to 26,003 acre feet, and, during the past season 17,176 acre feet of water were delivered under water rights and 11,147 acre feet supplied as sales including Katandra and North Shepparton Districts which carry no compulsory water rights.

In the Shepparton District general repairs and maintenance work were carried out, and two spillways were constructed to provide outfalls into the drainage system. A section of channel subject to seepage was lined with concrete slabs. Drainage works carried out from Unemployment Relief Funds have resulted in the effective drainage of the greater portion of the District.

Modifications and adjustments have been made in the irrigation system in the Katandra District to meet the reallocation of Closer Settlement holdings. A complete survey of the drainage system was made with a view to remodelling to meet the full requirements of this District.

In the North Shepparton District the Main Narioka channel has been extended to serve two additional properties. Considerable repairs were carried out on the channels and a length of the Kaarimba Main Channel has been concrete lined. Drainage works have been in progress throughout the year, and particular attention was given to the provision of an efficient outfall system for the drainage of the District.

No major works have been undertaken in the South Shepparton District, operations during the year being confined to the general maintenance of the channel system, and the provision of telephone connexions to the Water Bailiffs' quarters

TONGALA CENTRE.

The Districts controlled from this centre are Tongala, Stanhope, Deakin, and portion of the Echuca North Irrigation Districts, Kanyapella Flood Protection District, and Corop and Stanhope Urban Divisions. For the supply of water to these Irrigation Districts there are 366 miles of channels as well as 286 miles of drainage channels. During the season 43,304 acre feet of water were delivered to lands controlled from this centre.

In the Tongala District general maintenance and repair work has been carried out, particular attention being paid to the eradication of the growth of cumbungie in the irrigation channels by the employment, with satisfactory results, of a small gang of men constantly on this work. The drainage system has been extended by the construction of $17\frac{3}{4}$ miles of new drains, and the District is showing the benefit of the work.

On the irrigation channels in the Stanhope District only general repairs and maintenance works were carried out. The drainage system was, however, extended by the construction of $2\frac{1}{2}$ miles of new drains, and further construction is now in progress. In addition, weed growth is being removed from existing drains.

In the Deakin District works which effected great improvement to the channel system were carried out with Unemployment Relief funds, 43 miles of domestic and stock channels which were silted were cleaned out and $3\frac{1}{2}$ miles of seepage drains deepened.

The Stanhope Urban water reticulation system is being improved by the installation of larger mains in certain streets.

ROCHESTER CENTRE.

From this centre the Irrigation Districts of Rochester and Campaspe, and portion of Echuca North are controlled, as well as the Lockington Urban Division. In these Districts there are 432 miles of channels, 333 miles for irrigation, and 99 miles for drainage. The quantity of water delivered during the past season to irrigators amounted to 63,612 acre feet.

Irrigation works in the Rochester District were confined to the maintenance of and repairs to channels, and, during the season, there was a distinct improvement in the efficiency of the system. Drainage works in the District were continued with Unemployment Relief Funds, 8 miles of new drains being constructed, bringing the total for the district to 99 miles. Further drainage works are urgently needed in this District to give full productive value to the lands.

In the Echuca North District, which is principally used for wheat growing and sheep raising in the southern portion and dairy farming and market gardening in the northern portion, an adequate supply of water was maintained.

The Campaspe District, which is supplied with water when there is a free flow in the Campaspe River, received only a small quantity of water during the year as a result of the early failure of the river flow in October. Minor repairs were carried out to the Campaspe Weir and the channel system.

MAFFRA-SALE DISTRICT.

The total length of channels in this District is 274 miles, 192 miles for irrigation supplies and 82 miles for drainage purposes.

For the third year in succession the rainfall was much above the average, with the heaviest monthly fall in December. The total rainfall of $22\frac{1}{2}$ inches during the irrigation season seriously reduced the quantity of water required for irrigation, a total of only 10,300 acre feet being delivered. Of this total 7,200 acre feet were delivered in the months of February and March, the only period in which there was a seasonal demand for water. However, several new applications were received from landholders for the extension of the irrigation supply system to serve their properties and these proposals are being favorably considered.

Owing to silting and the rapid growth of weeds, the maintenance of the drainage system in this District is a serious problem, and the continued heavy rainfalls have emphasized the desirability of enlarging the system and providing additional drainage outfalls.

New works carried out during the year comprised the construction of 15 chains of concrete box channel and 105 chains of small drains. Due to damage caused by floods, maintenance work in the district has been very heavy, one section of the Main Sale Channel, which was completely washed away, having to be replaced with a syphon. To prevent the entry of cross drainage waters, syphons have been constructed on the Sale, Airly, and Valencia Creek irrigation supply channels.

Erosion of the banks of the Avon River is causing serious trouble with the nearby channel system, and a comprehensive survey is now being made to endeavour to formulate a scheme to control and check the erosion.

LODDON DIVISION.**PYRAMID HILL CENTRE.**

The Districts administered from this centre are Tragowel Plains, Dingee, and Calivil Irrigation and Water Supply Districts, Loddon United Waterworks Trust District, and Pyramid Hill, Dingee and Mitiamo Urban Districts. The total length of irrigation channels in these Districts is 607 miles.

Despite an erratic start due to spring rains a heavy demand for water was maintained until the end of the watering season. The total quantity of water delivered for irrigation during the year was 47,700 acre feet compared with 42,800 acre feet delivered in the previous year.

During the year 142 meter outlets were either installed or reconditioned and, consequently, a considerable saving of water and increased efficiency are anticipated in the coming year. Works to give an irrigation supply to approximately 950 acres of land in the vicinity of Kow Swamp are in progress.

From Unemployment Relief Grants made to the Commission numerous old structures were renewed, resulting in a considerable improvement to the water supply throughout the districts generally. The old weir on the Loddon River below the Serpentine Creek has been reconditioned, and it is now possible to give a regulated flow down that creek. Portion of the cost of this latter work was met by local subscription.

An electrical pumping unit has been installed for the Pyramid Hill Urban water supply.

BOORT DISTRICT.

Supply channels in this District have a total length of 144 miles. A steady demand for irrigation water continued throughout the year, a total quantity of 12,389 acre feet being delivered.

The acreage under lucerne and seeded pastures in this District is increasing from year to year and the heavy demand for water is expected to continue.

During the year about 20 miles of channels were cleaned out or partially remodelled, structures were reconditioned, and the water supply to the outlying areas was considerably improved.

The old timber weir at the offtake of the Twelve Mile Creek from the Loddon River was washed out during the year and is now being replaced with a concrete structure.

A new office is being erected at Boort for the Commission.

COHUNA CENTRE.

In order to facilitate the administration and working of this centre the Cohuna District was extended during the year to include portion of the old Gannawarra Irrigation and Water Supply District. A total area of 86,000 acres is now controlled from Cohuna Centre embracing the Irrigation and Water Supply Districts of Cohuna and Leitchville and the Cohuna and Leitchville Urban Divisions.

Supply channels serving this area have a length of 236 miles and drainage channels 110 miles.

Due to the comparatively dry winter of 1935 a heavy demand for water set in early and continued throughout the season, resulting in a record delivery of 48,600 acre feet.

Considerable improvement to supply channels and works was effected during the season with funds made available by the Government for unemployment relief purposes. Improvement works on the Barr Creek, the main drainage outlet for this area, have been continued, and main drainage facilities are now available to the western portion of Cohuna District in the vicinity of Barr Creek. An early start with the reconditioning of sub-drains in this area is contemplated.

During the year the Leitchville Urban supply was considerably improved by the laying of a new 6-inch diameter rising main, 60 chains in length. The erection of a steel water tower to link up with the Urban reticulation system is now in progress.

KERANG CENTRE.

The Irrigation and Water Supply Districts of Kerang, Koondrook, and Third Lake, the Urban District of Koondrook, and the Urban Division of Murrabit are controlled from this centre. During the year the Koondrook Irrigation and Water Supply District was extended to take in the balance of the Gannawarra District not included in the Cohuna District. There is a total length of 427 miles of supply channels and 102 miles of drainage channels serving the area now administered from the Kerang centre, and during the irrigation season 51,936 acre feet of water were delivered to these lands. In the various Districts 115 meter wheels were installed during the year.

The Kerang East Drainage scheme, carried out under Unemployment Relief conditions, is well advanced. The Barr Creek, which serves as the main outfall drain, has been deepened and improved through the Kerang and Koondrook Districts, a total length of 23 miles. The main drains linking this drainage system with the Barr Creek have been completed and subsidiary drains are now being constructed. Upon completion of these works it is proposed to constitute a Drainage District and make a drainage rate for maintenance purposes.

In an endeavour to trace the flow of sub-surface water in the salt affected areas of Kerang District a system of bores and test wells has been laid down, in co-operation with the Commonwealth Council for Scientific and Industrial Research, and it is anticipated that the data obtained will give a valuable indication as to the remedial measures necessary to bring the area back into a wholesome condition.

In the Koondrook Urban District improvements were made to the water supply reticulation system.

SWAN HILL CENTRE.

Administration from this centre embraces the sub-centre of Tresco, the Irrigation and Water Supply Districts of Swan Hill and Nyah, and the Urban Districts of Nyah, Nyah West, and Lake Boga.

The Tresco sub-centre includes the Irrigation and Water Supply Districts of Mystic Park, Tresco, and Fish Point, and the Kerang North-West Lakes Waterworks District. Supply channels in these Districts total 89 miles in length, and drainage channels 36 miles. During the season the Tutchewop Contour Channel was brought into operation, thereby cutting out Lake Tutchewop from the supply system and resulting in a considerable saving of water.

To serve the Swan Hill and Nyah Irrigation Districts there is a total length of 139 miles of supply channels and 53 miles of drainage channels. A heavy demand for water was experienced throughout the season, a total of 31,348 acre feet of water being supplied to Swan Hill District and 7,904 acre feet to Nyah District.

The dried fruits crop for the year amounted to 4,629 tons, as against 3,018 tons in the previous year. The crop on the whole was of excellent quality, being of three and four crown. The Swan Hill Co-operative Dairying Co. Ltd. manufactured 596 tons of butter, showing an increase of 110 tons over that manufactured in the previous year.

A small scheme giving drainage facilities to twelve Closer Settlement blocks situated to the east of the Woorinen area, and a local scheme giving storm water drainage relief to an area of approximately 500 acres of vineyards and pasture lands in the vicinity of Speewa, were completed during the year and are operating satisfactorily.

RED CLIFFS AND MERBEIN DISTRICTS.

In the Red Cliffs District there are 124 miles of irrigation channels and 5 miles of drainage channels, and in the Merbein District 54 miles of irrigation and 5 miles of drainage channels. In both of these Districts all requirements for water were met in the past season, 49,822 acre feet of water being delivered to irrigators as compared with 54,286 acre feet in the previous season. Heavy rains, up to 6½ inches in certain places, which fell early in January, interfered with the fourth irrigation, and damage to the extent of approximately 50 per cent. of the average yield was done to currant vines, but other crops were practically free from damage and were satisfactory.

A scheme for the electrification and increase in capacity of the Merbein Pumping Plant has been put in hand, the estimated total cost being £80,700. The work will be carried out in three stages spread over three to four years. It is expected that the first stage, consisting of the installation of a turbo-alternator at Red Cliffs Main Pumping Station, a transmission line from Red Cliffs to Merbein Pumping Station, and a 50 cusec pump and electric motor at Merbein, will be in operation for the irrigation in August, 1937.

Further substantial progress was made with the construction of the sub-surface drainage systems in the Red Cliffs, Merbein, and First Mildura Irrigation Trust Districts. These works are being carried out with Unemployment Relief Funds made available from time to time by the Government, the landholders themselves contributing towards the cost at the rate of £5 per acre of their holdings, such contributions being spread over a period of five years.

Including the Central System, which is well advanced, and the practically completed East System, the whole of the drainage systems, covering an area of 9,732 acres, in the Red Cliffs District, are now approaching completion. The total length of pipe drains in this District will be 94 miles, of which 60 miles have been completed.

In the Merbein District the North-West and West Drainage Systems covering an area of 2,361 acres have been completed, and the East Scheme of 2,200 acres is almost finished. Two areas, South-East and South-West, containing 3,100 acres, have yet to be done. When all these Schemes are completed there will be about 70 miles of pipe drains in this District. At present 26 miles have been installed.

The Irymple Valley drainage system in the First Mildura Trust District is being constructed by the Commission on behalf of the Trust. This scheme, which is 75 per cent. complete with $18\frac{1}{2}$ miles of pipe drains constructed, is the only one yet undertaken in the Trust's District, and it comprises more than one half of the area proposed to be drained in that District.

As many as 650 men at one time have been employed under Unemployment Relief conditions on the above mentioned drainage works.

Other works carried out during the year were limited to some special concrete lining of channels in the Red Cliffs and Merbein Districts from Unemployment Relief Funds and ordinary maintenance requirements.

The dried fruits crops for the season yielded 16,000 tons in Red Cliffs District, as against 12,500 tons in the previous year, and 9,286 tons in Merbein District, compared with 11,620 tons in 1934-35.

Considerable progress has been made in the townships of Red Cliffs and Merbein, and many extensions of water mains in the urban pipe reticulation systems were made to meet the increased demands.

BACCHUS MARSH AND WERRIBEE DISTRICTS.

In the Bacchus Marsh District 5,126 acre feet of water were supplied for irrigation from the 47 miles of channels. Owing to the scouring of banks of the Lerderderg River as the result of flood waters it was necessary to make a deviation in the Lerderderg West concrete channel. The work consisted of the construction of 2 chains of new concrete box channel and the strengthening with concrete piers of portion of the old channel. Forty chains of the Maddingley and Werribee North channels were cement rendered and three expansion joints were installed to prevent seepage from these concrete channels through joints adjoining the river banks. To prevent further scour under the pipe syphon at the Coimadai Creek crossing, additional concrete foundations were constructed.

Protective works consisting of 900 feet of timber and stone cribs were carried out during the year to prevent erosion of the banks of sections of the Lerderderg River. Similar works constructed previously on the Lerderderg and Werribee Rivers and the Coimadai Creek are still in excellent condition.

To improve the water pressure to properties in Main-street, Bacchus Marsh, on the extreme eastern boundary of the Urban Division, larger pipes were laid for a distance of 3,640 feet and the old cast-iron pipes taken up were prepared for relaying elsewhere.

At Pykes Creek Reservoir the *Pinus insignis* trees planted in past years are making excellent growth, and 7,000 additional seedlings were planted during this year.

The main embankment of the Melton Reservoir was strengthened and raised, and 2,340 square yards of stone beaching were laid on the upstream slopes of the embankment. Work on the installation of spillway gates to increase the capacity of the reservoir has been advanced.

In the Werribee Irrigation District, where there are 47 miles of channels supplying water for irrigation, the benefit of the concrete lining of channels during the past few years was felt in the 1935-36 irrigation season. Because of the savings of water effected and the greater flexibility of deliveries with a concrete lined channel system all demands were met promptly, notwithstanding the fact that greater volumes of water than ever before in the District had to be run to meet the continuous requirements during the dry season from November to March. The total quantity of water delivered during the year was 14,398 acre feet, compared with 13,452 acre feet in the previous year. The drainage system comprising 41 miles of channels functioned effectively throughout the year.

Water was supplied as usual from the 24 miles of channels to lands in the Werribee Waterworks District, and resulted in all dams being full in one of the driest summers experienced at Werribee.

An area of land, containing 193 acres suitable for irrigation, adjoining the Main Channel, has been transferred from the Werribee Waterworks District to the Werribee Irrigation and Water Supply District, and a water right of 130 acre feet apportioned thereto. As several water rights were reduced during the year, the net increase of water rights in the District will, however, be only 68 acre feet.

Steps are being taken to include in the Waterworks District an area of 1,100 acres traversed by water supply channels.

TOWN SUPPLIES.

MAIN URBAN SUPPLIES DIVISION.

COLIBAN SYSTEM.

The Coliban System, comprising two main storage reservoirs on the Coliban River, the Upper Coliban with a capacity of 25,700 acre feet, and Malmsbury with a capacity of 12,300 acre feet, together with 29 subsidiary reservoirs with a total capacity of 6,970 acre feet, also main and distributary channels of a total length of 389 miles, and about 300 miles of urban pipe reticulation, provides a supply of water for the City of Bendigo, the important towns of Castlemaine, Eaglehawk, and Maldon, and eighteen other townships, and, in addition to providing water for irrigating some 9,300 acres of orchards, market gardens, permanent pastures and other crops, supplies the water requirements of the mining industry throughout the district.

In order to minimize losses of water through seepage, as well as improve the efficiency of distribution, the Commission has actively pursued the policy of carrying out the important work of remodelling and lining channels with concrete, and during the year a further length of $3\frac{1}{4}$ miles of the Main Channel has been completed. The total length of this channel from Malmsbury to Bendigo is 43 miles, of which some 13 miles have now been lined. Works of a similar nature have been proceeded with on the branch channels, the more important of these being the completion of approximately 5 miles of channel lining, the substitution of a syphon consisting of 11 chains of 24-inch diameter concrete pipes for a section of 40 chains of the Axe Creek Race, near Bendigo, and the enlargement of the Diamond Hill Race, on which two syphons, 15 inches diameter, of a total length of $11\frac{1}{2}$ chains, have been replaced by the same length of 24-inch diameter pipes. In addition, an old dilapidated timber flume, 2 chains in length, at $6\frac{3}{4}$ miles on the Huntly Race, has been replaced by a more modern structure in reinforced concrete. There are now some 13 miles of lined distributary channels in the system.

The foregoing improvements have added materially to the carrying capacity of the channel system, and have also substantially lessened seepage and other losses of water.

Extensive improvements of the pipe reticulation were carried out in Eaglehawk at a cost of £12,000. The principal work was the completion of a portion of the Commission's general scheme for improvement of the reticulations of Bendigo and Eaglehawk, and consisted of the laying of a 15-inch diameter steel cement-lined pipe from Specimen Hill Reservoir to Long Gully, and a 12-inch diameter pipe of same material in Mount Korong Road, as far as the Eaglehawk Town Hall. This new water supply pipe line is already in use, but the full benefit will not be appreciated until next summer.

Improvements in the supply to a portion of the southern outskirts of the Borough of Castlemaine have been effected by laying a new 3-inch diameter main from Norwood Hill Basin, connecting with the existing reticulation. The results achieved have been entirely satisfactory.

During the year, to meet the increasing demand for water as a result of the increase in the number of buildings, improvements of pipe reticulation, and extensions, amounting to 25 chains, have been carried out in Bendigo, and applications for further extensions of a total length of 50 chains have been received and are under consideration.

Major proposals for the remodelling of the water supply reticulation systems of Bendigo, Eaglehawk, and Castlemaine, and for the lining of the Main Channel, estimated to cost £200,000 in all, have been prepared by the Commission and referred by the Government to the Public Works Committee for report and recommendation.

The new floating arm installed at Crusoe Reservoir two years ago continues to give satisfaction, the improvement noticeable last year in the quality of the water being maintained.

For measuring the water in the channels where ordinary weirs have been found unsuitable a number of hydraulic control flumes have been installed and are giving satisfaction.

Owing to seasonal conditions the demand for water for irrigation from the channels was considerably greater than usual. All requirements were met satisfactorily, but, on account of the rate at which the storages were being depleted, the Commission, in order to conserve water for domestic and irrigation purposes, had to discontinue supplies for sluicing at the end of December.

MORNINGTON PENINSULA DISTRICT.

The raising of the crest level of the bank of the Lysterfield Reservoir, for which work Unemployment Relief Funds were made available, provided several months' work for a number of men, and the reservoir bank has now been made safe against even greater flooding than that which occurred in December, 1934.

Although no major works were carried out in the district during the year, considerable extensions to the existing reticulation services were made throughout the urban districts in the Mornington Peninsula, including the provision of supplies to market gardens and poultry farms in the Dingley area at Spring Vale. Early in the year the reticulation of the Ranelagh Estate in the South Frankston Urban District was completed. This has not only provided an improved domestic water supply, but has enabled an effective fire service to be installed for the protection of the valuable properties in this locality.

Arrangements have been made for the completion of the Bittern Reservoir at Hastings and the extension of the water supply system to the bayside towns from Dromana to Sorrento and Portsea.

WONTHAGGI DISTRICT.

The low level service basin on the Lance Creek pipe line, constructed to provide a reserve storage near the Wonthaggi township, has been completed and filled with water. The installation of the second electrical pumping unit to work in conjunction with this basin was also completed. It is anticipated that during the coming season the new works will meet all water supply requirements during periods of peak consumption.

BELLARINE PENINSULA DISTRICT.

The Bellarine Peninsula scheme, supplying Geelong and Anglesea, Barwon Heads, Drysdale, Ocean Grove, Point Lonsdale, Portarlington, Queenscliff, and Torquay, functioned satisfactorily during the exceptionally dry summer just passed, and landholders, particularly in the rural areas where the scarcity of local water for stock and domestic use in the District was very pronounced, found the supply available from the Commission's channels and pipe lines of great benefit in their farming and dairying operations.

Wurdee Boluc, the main storage reservoir of 10,000 acre feet capacity, was full at the commencement of the season, and after all the heavy demands for water had been met, the available storage at the end of the season was 5,800 acre feet.

During the year a number of extensions was made to the existing reticulation systems at Drysdale, Portarlington, and Queenscliff, and applications for further extensions are under consideration.

A total of 497,000,000 gallons of water was supplied during the year to the Geelong Waterworks and Sewerage Trust from the Commission's Bellarine main pipe line.

WATERWORKS DISTRICTS.

WIMMERA-MALLEE DIVISION.

WIMMERA-MALLEE WATER SUPPLY.

This system, which covers an area of 11,000 square miles, comprises 6,319 miles of Commission's channels, apart from more than 3,000 miles of farmers' connecting channels. Water is supplied chiefly from the Wimmera and Glenelg Rivers and the Grampians Headworks Reservoirs, augmented by supplies from the Loddon and Goulburn systems.

During the year full supplies were distributed throughout the system, and as an average season was experienced, the annual run in all of the channels was effected without serious trouble from sand drift, although the cost of cleaning sand from channels was comparatively high and much greater than it would have been if some measure of control of fallowing within reasonable distance of channels in places likely to drift had been made possible.

Townships with water supply reticulations connected to the system were given ample supplies during the year. In addition to five towns controlled by Waterworks Trusts within the area, there are 38 Urban Districts with water supply systems operated by the Commission, viz. :—

Antwerp	Dimboola	Marnoo	Quambatook	Waitchie
Berriwillock	Dooen	Minyip	Rainbow	Walpeup
Beulah	Hopetoun	Nandaly	Rupanyup	Watchem
Birchip	Jeparit	Natimuk	Sea Lake	Woomelang
Brim	Jung Jung	Nullawil	Speed	Woorinen
Chillingollah	Lalbert	Nyah West	Tempy	Wycheproof
Chinkapook	Lascelles	Ouyen	Ultima	Yaapect
Culgoa	Manangatang	Patchewollock		

The headworks reservoirs of the system contained ample reserves of water at the end of the watering season to provide for the forthcoming season.

In the newer Mallee areas a number of closer settlement holdings has been vacated, and, consequently, a considerable length of channels was not run.

WESTERN WIMMERA, UPPER WESTERN WIMMERA, WIMMERA UNITED, UPPER WIMMERA UNITED, KARKAROOC, AND HINDMARSH DISTRICTS.

Nine miles of new channels were constructed during the year to supply water to long settled country which hitherto has had to depend on surface catchments for water requirements.

In the Urban Districts of Beulah, Dimboola, Hopetoun, Jeparit, Rainbow, and Rupanyup, extensive remodelling of the pipe reticulation systems was carried out, and various extensions of water mains in many townships were made to cope with development.

Steady progress is being made in irrigation in the vicinity of Horsham and Murtoa, where supplies are made available by the Commission. In the Horsham area 1,802 acres were irrigated, as compared with 1,259 acres three years ago, and in the Murtoa area 88 acres, compared with 10 acres three years ago, were watered. In accordance with the conditions laid down by the Commission in making additional supplies of water available in these districts, the increased area comprises chiefly permanent pasture and annual fodder crops required to facilitate the fattening and holding of stock over the dry season of the year. In all 1,259 acres of orchards and market gardens and 631 acres of permanent pasture and annual fodder crops are irrigated.

BIRCHIP, WYCHEPROOF, SEA LAKE, DERING, EUREKA, WALPEUP CENTRAL, TYRRELL, TYRRELL WEST, LONG LAKE, AND TYNTYNDER DISTRICTS.

On the Tyrrell West Main Channel a number of new concrete bridges was constructed to replace old structures of a capacity too small to carry the increased water flows required.

No new channels were constructed in the abovementioned districts during the year. In the newer Mallee water was not run in certain channels which supplied holdings now vacated by settlers and licensed for grazing. In some cases, however, arrangements were made by the licensees for a supply of water on sales basis.

Adjustments in district boundaries were made by subdividing the Tyrrell District into Tyrrell and Tyrrell West Districts, the latter being administered from Ouyen centre. The Baring and Kia Districts were abolished and included in the new Tyrrell West District.

Extensions to the pipe reticulations in the Urban Districts of Culgoa, Manangatang, Ouyen, Patchewollock, and Woorinen, were made and extensive remodelling of the mains in Berriwillock was effected.

In the Baring area of the Tyrrell West District unsupplied by channels, two new ironclad catchments were installed on holdings, making a total of 17 such catchments on farms in this locality.

A new administrative office is being erected at Ouyen for the Commission.

WALPEUP WEST DISTRICT.

Water for public purposes and for carting by farmers is provided by 109 public bores equipped with windmills and elevated tanks throughout this District. All bores have been kept in efficient working order during the year, a number of replacements being made in the plant and equipment.

COREENA, CARWARP, AND YELTA DISTRICTS.

In the Coreena District, the 103 miles of channels, which are watered from the pumping plant at Coreena Bend on the River Murray, were run with the exception of those serving holdings which have been vacated and licensed for grazing.

The Carwarp and Carwarp Central Districts which are watered from the Red Cliffs pumping plant through the 167 miles of channels comprising the system received full supplies of water. Some 20 miles of channels were not run on account of the vacation of holdings.

The Yelta system comprises 50 miles of channels which are supplied with water from the Merbein pumps. Owing to a number of holdings in this area becoming vacant, water was supplied to occupied allotments only, and the running of some 8 miles of channel was rendered unnecessary.

MILLEWA AND MILLEWA CENTRAL DISTRICTS.

Full supplies of water were given to all occupied holdings in these Districts through the 678 miles of channels comprising the system.

Water is pumped from the River Murray at Lock 9 to a height of 145 feet for the Millewa District, and an additional 135 feet for the Millewa Central District, four separate plants being required for the purpose.

The parishes of Yaramba, Willah and portion of Tarango were excised from the District. This area, which was vacated by settlers, has now been leased for grazing in large areas, and by arrangement with lessees, water is supplied on a sales basis.

In the Urban District of Werrimull small extensions to the pipe reticulation system were made.

INVESTIGATIONS OF NEW IRRIGATION AND WATER SUPPLY PROPOSALS.

PROPOSED MURRAY VALLEY IRRIGATION DISTRICT.

In connexion with the projected supply of water from the Hume Reservoir to lands in the proposed Murray Valley District by means of a diversion weir on the River Murray at Yarrowonga, contour plans of the whole area proposed to be irrigated have now been completed. The Main Channel from its offtake at the Weir has been finally located for some $11\frac{1}{2}$ miles and construction is now in progress. Sub-main and distributary channels have also been surveyed through a large portion of the Cobram area.

WESTERN DISTRICT WATER SUPPLY SCHEME.

A commencement was made on the construction of the works of this scheme, which is being undertaken to provide a water supply to the City of Warrnambool and the towns of Camperdown and Terang from the Arkins Creek catchment in the Otway Ranges. The possibility of supplying the township of Cobden is also being considered.

A large amount of investigation work was carried out in connexion with the location of pipe lines and storages. Detailed surveys were made and various storage sites were tested by shafts and bores. At the headworks on Arkins Creek three concrete diversion weirs were constructed and the laying of the 17-inch diameter concrete-lined steel pipe line was commenced. The major portion of the pipe track from Arkins Creek to Camperdown has been cleared and formed, but pipe laying was held up pending delivery of pipes. The preliminary works having been completed, rapid progress is expected to be made during the coming year.

The scheme is estimated to cost £310,000, of which £91,000 is being provided from Unemployment Relief Funds.

PROPOSED NORMANVILLE WATERWORKS DISTRICT.

Surveys for the location of channels for the supply of water by gravitation for domestic and stock purposes to lands near Quambatook, Oakvale, and Normanville have been completed, and plans are in course of preparation. Construction is, however, being held over pending the Report of the Royal Commission on Water Supply.

IRRIGATION DISTRICTS DRAINAGE PROPOSALS.

In Merbein, Red Cliffs, and Mildura Districts surveys have been further extended in respect of comprehensive drainage schemes for lands within these districts, and drainage reserves at outfalls of the respective schemes have been defined.

Surveys in connexion with drainage schemes in Kerang East, North Shepparton, Rochester, Rodney, Shepparton, Swan Hill, and Tongala Districts have been further extended. At an early date it is proposed to constitute Drainage Districts and to make drainage rates to meet maintenance costs of these works.

PROPOSED EXTENSION OF MORNINGTON PENINSULA DISTRICT.

A proposal, estimated to cost £160,000, for the extension of the Mornington Peninsula District to supply water to the towns of Dromana, Rosebud, Rye, Sorrento, and Portsea was submitted by the Government to the Public Works Committee. After investigation and recommendation of the proposal by that Committee, the Government agreed to subsidise the scheme by making a free grant of £55,000, leaving £105,000 to be carried by the ratepayers in the area to be supplied. The main works of the proposal consist of a channel with syphons from the Cranbourne Pipe Line to a 480 acre feet storage reservoir to be constructed at Bittern. From this reservoir water is to be taken in a concrete-lined race for a distance of $13\frac{3}{4}$ miles to a service reservoir and pipe head basin near Dromana, from which the main supply pipe line, about $15\frac{1}{2}$ miles in length, will be laid through Rosebud, Rye, and Sorrento to Portsea.

LITTLE RIVER WATER SUPPLY SCHEME.

In connexion with the proposal that works be carried out to provide a water supply for the irrigation of lands at Lara, Little River, and the western portion of Werribee, further investigations were carried out by the Commission in relation to a suggestion that water at present supplied to Geelong from Moorabool River and Stony Creek be diverted to these areas, and that the supply for Geelong be obtained from streams in Otway Forest. These investigations proved that, on account of the high cost of water to landholders, the proposal would be impracticable. However, investigations are being made to ascertain the practicability of constructing one or more small weirs in the Little River to conserve water for the use of local landholders who are prepared to contribute towards the cost of the proposed structures.

GOULBURN HEADWORKS AND MAIN CHANNELS.

These works comprise the Eildon Reservoir, 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; the Waranga-Rodney Channel, a distance of $4\frac{1}{2}$ miles; the Main Western Channel, extending westerly from the Waranga Reservoir to the Loddon River, a distance of 98 miles; the Waranga Western Main Channel Extension, extending north-westerly from the Loddon River for a further distance of 130 miles to Kurdgweechee to supplement the supply from the headworks of the Wimmera-Mallee Gravitation System for domestic and stock purposes, making a total distance of 228 miles from the Waranga Reservoir; the Leaghur-Normanville Main Channel, extending from a point 36 miles on the Waranga Western Main Channel Extension northerly for a distance of 6 miles; the Tandarra-Calivil Main Channel, extending from 64 miles 69 chains on the Waranga Western Main Channel north-westerly to Tragowel Plains No. 1 Main Channel, a distance of 26 miles. On the eastern side, the Main Eastern Channel now extends from the Goulburn Weir to the Nine Mile Creek, a distance of 61 miles. The total length of main channels is therefore 349 miles. The Irrigation Districts supplied are South Shepparton, Shepparton, North Shepparton, Katandra, Rodney, Deakin, Tongala, Stanhope, Rochester, Echuca North, Dingee, Calivil, Tragowel Plains, and Boort.

On the Goulburn-Waranga Main Channel, reconditioning of the No. 4 Flume was completed in time to permit of the filling of the Waranga Reservoir. The offtake to the Minter Channel was lowered, and the inlet to the channel at the Goulburn Weir was cleared of weed growth and willows were removed from the channel itself. These works, together with the action of the frost on the weed growth in the bed of the channel during the period the channel was drained out, made a decided improvement in the carrying capacity of the channel. General maintenance work has been carried out along the Waranga Western Channel. The closing down of this channel also during the frosts resulted in the weed growth along the bed being considerably reduced, thereby improving the capacity of the channel.

MURRAY AND MAJOR WORKS DIVISION.

RIVER MURRAY WATERS AGREEMENT WORKS.

GENERAL OUTLINE.

The scheme of works provided in the River Murray Water Acts, passed by the Governments of the Commonwealth and of the States of New South Wales, Victoria, and South Australia, comprised storages on the Upper River Murray and at Lake Victoria, locks and weirs in the course of the River Murray from its mouth to Echuca, and also locks and weirs on the lower part of the River Murrumbidgee. The Acts also provide that, for purposes of construction, the Minister of Public Works of New South Wales shall be the Constructing Authority for that State; that for South Australia, the Commissioner of Public Works shall be the Constructing Authority; and that the State Rivers and Water Supply Commission shall be the Constructing Authority for Victoria.

As mentioned in the last Report, a further amending agreement has been entered into by the Commonwealth of Australia and the States of New South Wales, Victoria, and South Australia, to provide for the construction, in accordance with the general provisions of the original Agreement, of (a) the Upper Murray Storage (Hume Reservoir) to a capacity of approximately 1,250,000 acre feet of water only, (b) a roadway over the Hume Dam, (c) a diversion weir at Yarrawonga, (d) two weirs on the River Murrumbidgee, and (e) barrages across the five channels on the vicinity of the mouth of the River Murray. This further amending Agreement also provides for (1) the extension of the construction of the Upper Murray Storage to a capacity of not more than approximately 2,000,000 acre feet of water, if and when so desired by the States of New South Wales, Victoria, and South Australia, (2) the release of the Commonwealth Government from liability to contribute towards the cost of the maintenance, operation, and control of completed works and gauging stations, such cost to be borne in equal shares by the three State Contracting Governments, and (3) the deletion from the Agreement of the thirteen weirs and locks on the River Murray, and the nine weirs and locks on the River Murrumbidgee, the construction of which has not been commenced.

Up to the present the South Australian Constructing Authority has completed the Lake Victoria Storage and the nine weirs and locks between Lake Alexandrina and Wentworth, and is now engaged on works in connexion with the construction of the five barrages in the vicinity of the Murray mouth.

The New South Wales Constructing Authority has completed Weir and Lock No. 10 at Wentworth and, during the year, has continued work on Weir and Lock No. 15, Euston, and commenced preliminary works on Murrumbidgee Weir No. 5. The site of Murrumbidgee Weir No. 7 has been approved and construction work will be put in hand at an early date.

The State Rivers and Water Supply Commission, the Constructing Authority for Victoria, has completed the Weirs and Locks at Torrumbarry and Mildura and is making progress with the construction of the diversion weir at Yarrawonga.

A uniform system of traffic signals to be used on the River Murray has been agreed to by the four Contracting Governments, and steps were taken by the three State Contracting Governments to bring into force, as from 1st October, 1936, regulations for the operation and control of Locks embodying these traffic signals.

HUME RESERVOIR.

During the year the construction of the Hume Reservoir was completed by the New South Wales and Victorian Constructing Authorities in accordance with the recent amended agreement.

The roadway across the concrete spillway and the earthen embankment was constructed and joined to the existing road systems on each side of the river. This roadway was made available for use by the public in January last and has been extensively used since that date.

The embankment has been satisfactorily maintained during the year. Several buildings and a considerable quantity of plant and materials were transferred to Yarrawonga Weir.

In June, 1936, surplus plant, buildings, and materials on the Victorian section of the works were disposed of by auction.

The permanent residence for the caretaker was erected at the Victorian end of the embankment. The reservoir was at full supply level (R.L. 606 feet) from 27th September, 1935, to 21st December, 1935. The highest level reached during the year was R.L. 607 feet, on 30th October, 1935, and the lowest, R.L. 586.25 feet, on 26th June, 1936. No trouble was experienced from algal growths in this reservoir during the year.

It is expected that the works will be officially opened by His Excellency the Governor-General of the Commonwealth of Australia on 21st November, 1936.

YARRAWONGA WEIR.

This Weir, which is required to divert the regulated flows of water down the River Murray from Hume Reservoir, was included in the Amended River Murray Agreement.

The structure will consist of three sections; a concrete weir, 369 feet in length across the Murray River itself; an earthen dam, 1,144 feet across the river flats; and a flood outlet 87 feet long across a flood channel on the New South Wales side of the river—a total length of 1,600 feet. In the weir across the river there will be eight movable flood gates, each 40 feet long and 20 feet high, operated by electric winches, and a further two gates of similar construction in the flood outlet at the north end. The average height of the weir across the river will be approximately 50 feet from foundations to the crest of the flood gates and 90 feet from foundations to the platform for operating the flood gates. The earthen dam over the flats will be approximately 20 feet high, with a crest width of 24 feet 6 inches. The estimated quantities of the materials in the structure are—concrete 30,000 cubic yards, earthwork 90,000 cubic yards, stone 8,000 cubic yards, and steel 1,700 tons. The weir will raise the level of the water some 20 feet above the ordinary summer level of the river and will supply water for irrigation and domestic and stock requirements for 400,000 acres on the Victorian side in the Murray Valley District, extending from Numurkah and Nathalia northwards to the River Murray near Cobram, and 1,100,000 acres on the New South Wales side, in the Riverina, west of Berrigan.

The question of providing a roadway and bridge across the structure for stock traffic between the two States is being considered in conjunction with the respective Road Authorities.

During the year the construction of the first coffer dam enclosing half the river section of the concrete wall on the New South Wales side was completed, and this coffer dam was unwatered on 18th April, 1936.

In the coffer dam area, the overburden above the rock foundations was excavated and conveyed either to storage dumps or to the embankment over the flats. The rock foundations were also excavated to required levels over the greater part of the coffer dam area. The quantities of overburden and rock excavated for the year were 36,400 cubic yards and 2,660 cubic yards respectively. During the year, 14,060 cubic yards of materials were placed in the embankment across the flats on the New South Wales side.

The site for the flood gate structure at the northern end of the Weir was cleared and excavated to the designed levels, and the steel sheet piling cut-off walls were driven, the quantity of piling driven being 310 tons.

Six workmen's cottages and one large store were erected during the year.

WEIRS AND LOCKS, TORRUMBARRY AND MILDURA.

Both these works, which were constructed by the State Rivers and Water Supply Commission, operated satisfactorily during the year, and again proved beneficial in connexion with the water supply to the important Irrigation Districts along the River Murray.

STORAGES.

EILDON RESERVOIR.

During the year, the bank was kept to its designed section by adding rockfill where necessary. The strengthening of the outlet tower was completed and the upstream gate valves were placed in position. The spillway gates and outlet valves were painted with anti-corrosive paint. These gates and valves were operated successfully during the year. Observations of the drainage flows from the bank show that the drainage system has been operating quite satisfactorily. Further lining of the bywash floor with concrete was carried out, the quantity placed being 1,050 cubic yards.

The works referred to above completed the remedial measures recommended by the Inquiry Board, to which reference has been made in previous Reports.

The Board of Inquiry has since inspected the dam, and, after carefully noting all the remedial works and examining the records, reported that "As a result of its inspection the Board would like to express its satisfaction at the conscientious manner in which the works recommended by it have been carried out. Much of the work was of a difficult character. The Board is satisfied that it has been thoroughly done and that the structure is now efficient for the purpose for which it was designed, i.e., to store water to R.L. 823", giving a storage of 306,000 acre-feet.

The reservoir was at full supply level during October and November, 1935.

GLENMAGGIE RESERVOIR.

During the year, about 400 cubic yards of concrete protection were placed in the river bed just downstream of the main structure where scour by flood waters had occurred.

A training wall on each side of the dam on the downstream face was constructed. This work will confine flood waters to the section between the retaining walls and prevent damage by flood waters behind these walls.

The gearing of the outlet valves was brought to the crest of the dam to provide ease of access and operation. A grove of trees was planted on the northern side of the dam.

GOULBURN WEIR.

On completion of the irrigation season in May, 1936, the water level of the weir was lowered to allow an examination of the gates along the crest of the structure. These gates, which were installed in 1891, were found to be in good order generally. Minor repairs were carried out and the gates painted with anti-corrosive paint. At the same time the inlet regulating gates on the Goulburn-Waranga Channel and on the East Goulburn Channel were put in order. It is hoped during the coming year to carry out some improvement works downstream of the structure to provide a better path for flood waters and so reduce the scouring of the river bed.

Further tree planting and other minor improvements were carried out.

LAANECOORIE RESERVOIR.

To provide greater security against damage by floods, the embankment at Laanecoorie was raised by three feet. This necessitated the raising of the clay corewall and the beaching of the faces of the new portion of the embankment.

The levee bank along the eastern side of the reservoir is also being raised from two to three feet.

The spillway gates were repaired and painted with anti-corrosive paint, and further repairs were done to the outlet valves. On the bywash the concrete lining, which had been damaged by floods, is being renewed and strengthened. It is expected that all work will be completed by November, 1936.

MELTON RESERVOIR.

The raising of the reservoir storage level by three feet by the installation of gates to provide an additional storage of 2,100 acre-feet for the Werribee Irrigation District was commenced and is well advanced. The work on the embankment has been completed, and the construction of the piers for the five 40 feet by 5 feet gates on the spillway is in hand.

The 2 feet 6 inches diameter cast iron pipes in the outlet tunnel have been installed, and the new balanced regulating valve has been placed in position. It is expected that the whole of this work will be completed by the end of 1936.

WARANGA RESERVOIR.

Violent storms during December, 1935, caused considerable damage to the stone face pitching of the embankment of the Waranga Reservoir. The whole of the damage was made good by stone filling grouted with concrete. Stone for pitching was quarried and carted on to the crest of the embankment where it was placed in heaps for emergency purposes.

During the year, one mile of the tramline along the crest of the embankment was relaid with heavy rails. It is proposed to continue relaying a further length during the coming year, and to resurface and fill up settlements along the outside face of the bank.

The caretaker's house has been renovated and a grove of trees planted nearby.

TOTAL STORAGES IN STATE.

In 1902 the total capacity of storages in the State was 172,000 acre feet. The present capacity is 1,887,100 acre feet. The Hume Reservoir, designed to contain 2,000,000 acre feet (half of which can, subject to the provisions of the River Murray Agreement, be credited to the State of Victoria) now has a capacity of 1,250,000 acre feet. When the final stage of this work has been constructed (involving a further approval of the interested State Governments), and the Yarrawonga Weir, Euston Lock Weir, Glenmaggie, Melton and Bittern Reservoirs are completed, the combined capacities of Victoria's storages will be 2,347,180 acre feet.

EXISTING STORAGES.								Capacities in Acre Feet.
<i>Goulburn System—</i>								
Goulburn Weir	..	..	..	..	..	..	..	20,700
Waranga	..	..	..	..	..	..	..	333,400
Eildon	..	..	..	..	..	..	..	306,000
<i>Murray-Loddon System—</i>								660,100
Hume Reservoir (part of 2,000,000 acre feet—half share)	..	..	..	..	..	..	..	625,000
Torrumbarry (half share of 26,000 acre feet)	..	..	..	..	..	..	..	13,000
Mildura (half share of 34,000 acre feet)	..	..	..	..	..	..	..	17,000
Wentworth (half share of 20,000 acre feet)	..	..	..	..	..	..	..	10,000
Kow Swamp	..	..	..	..	..	..	..	40,860
Laanecoorie	..	..	..	..	..	..	..	6,650
Kerang North-West Lakes*	..	..	..	..	..	..	..	68,900
Lake Boga	..	..	..	..	..	..	..	28,000
Long Lake	..	..	..	..	..	..	..	3,820
<i>Wimmera-Mallee System—</i>								813,230
Fyans Lake	..	..	..	..	..	..	..	17,100
Lake Lonsdale	..	..	..	..	..	..	..	53,300
Wartook	..	..	..	..	..	..	..	23,800
Taylor's Lake	..	..	..	..	..	..	..	30,000
Pine Lake	..	..	..	..	..	..	..	52,000
Green Lake	..	..	..	..	..	..	..	6,600
Dock Lake	..	..	..	..	..	..	..	4,800
Moora	..	..	..	..	..	..	..	5,100
Lower Wimmera Weirs	..	..	..	..	..	..	..	2,870
Batyo Catyo (Avon Regulator)	..	..	..	..	..	..	..	5,000
Lake Whitton	..	..	..	..	..	..	..	1,300
Earthen Storages, Township Reservoirs, and Mallee Tanks	..	..	..	..	..	..	..	5,760
<i>Maffra-Sale System—</i>								207,630
Glenmaggie (part of 150,000 acre feet)	..	..	..	..	..	..	..	104,500
<i>Coliban System—</i>								
Upper Coliban	..	..	..	..	..	..	..	25,700
Malmsbury	..	..	..	..	..	..	..	12,300
Spring Gully	..	..	..	..	..	..	..	2,000
Subsidiary Reservoirs	..	..	..	..	..	..	..	4,970
<i>Werribee System—</i>								44,970
Pykes Creek	..	..	..	..	..	..	..	21,000
Melton	..	..	..	..	..	..	..	17,000
<i>Bellarine Peninsula System—</i>								38,000
Wurdee Boluc	..	..	..	..	..	..	..	10,000
Service Basins	..	..	..	..	..	..	..	660
<i>Mornington Peninsula System—</i>								10,660
Lysterfield	..	..	..	..	..	..	..	3,490
Beaconsfield, Frankston, and Mornington	..	..	..	..	..	..	..	1,660
Service Basins	..	..	..	..	..	..	..	200
<i>Miscellaneous—</i>								5,260
Eppalock	..	..	..	..	..	..	..	1,200
Wonthaggi	..	..	..	..	..	..	..	1,550
Total capacity of existing Storages								1,887,100
ADDITIONAL STORAGE BEING PROVIDED BY WORKS IN COURSE OF CONSTRUCTION.								
<i>Werribee System—</i>								
Melton (Enlargement)	..	..	..	..	..	..	..	2,100
<i>Mornington System—</i>								
Bittern	..	..	..	..	..	..	..	480
<i>Murray System—</i>								
Yarrawonga Weir (half share of 50,000 acre feet)	..	..	..	..	..	..	..	25,000
Euston Lock Weir (half share of 24,000 acre feet)	..	..	..	..	..	..	..	12,000
								39,580
FURTHER STORAGE WHICH COULD BE PROVIDED BY COMPLETION OF EXISTING WORKS.								
<i>Maffra-Sale System—</i>								
Glenmaggie (balance of 150,000 acre feet)	..	..	..	..	..	..	..	45,500
<i>Murray System—</i>								
Hume Reservoir, at junction with Mitta River (half-share of balance of 2,000,000 acre feet)	..	..	..	..	..	..	..	375,000
								420,500
Total capacity of Storages when works are completed								2,347,180

* Lake Tutchewop omitted as it is no longer used as a storage.

RIVERS AND RECLAMATION DIVISION.

DRAINAGE AND FLOOD PROTECTION SCHEMES.

LOCH GARRY.

The Loch Garry works again proved effective in preventing the flooding of lands in the protected area. The Goulburn River at Shepparton was above the gauge reading of 30 feet for a period of five weeks, and reached 34 feet without any flooding in the district. A second rise in the river later in the year was also held by the works. During the year 1½ miles of the embankment, in the vicinity of the regulator, were loamed to promote a growth of grass to protect the bank from scour.

KANYAPELLA.

The repairs effected to the works during the past year proved satisfactory, and the area within the district was protected from all rises in the Goulburn River.

ECHUCA.

Conditions in this district were satisfactory, no flooding having taken place. Maintenance work was carried out.

CARRUM.

The important work of connecting the Dandenong Creek Drain, from Pillar's Bridge to the large main outfall for discharging flood waters into the sea through the Patterson River at Carrum, has been completed. This work considerably reduces the risk of overflow of the Dandenong Creek waters on to a large area of farm lands in the Keysborough district, and also affords greater security to the extensive tract of country situated south of the Mordialloc drain. The main outfall system amply provides for all recorded flows in the Dandenong and Eumemmerring Creeks excepting the phenomenal flood of December, 1934.

During the year further repairs were carried out to the works damaged by prior floods, and many miles of internal drains were cleaned out and regraded, mainly with special funds granted for the purpose.

KOOWEERUP AND CARDINIA.

During the past year the Commission has effected repairs to banks and structures damaged by the earlier floods in these districts, and has proceeded with the construction of major works, in accordance with the plan of improvements submitted to the Government, to afford a much greater measure of flood protection to lands in the Cardinia District, and in the western portion of the Kooweerup District.

To expedite progress with the work the Commission has put into operation five dragline excavators on the construction of the large Toomuc-Deep Creek outfall and catch drain on the east side of the existing Toomuc-Cardinia main drain. This new main outfall has now been practically completed for a distance of 3½ miles from Western Port Bay, and has involved the erection of several large bridges at the railway, the main Coast-road, and Mank's-road.

In addition to the above-mentioned machines a further dragline caterpillar excavator has continued the enlarging and reconditioning of McDonald's drain, which is the main outfall for the discharges of the Ararat and Deep Creeks on the north side of the Kooweerup Canal. This work is now well advanced and will, it is expected, be completed by the end of December, 1936.

During the year in the two Districts approximately 440,000 cubic yards of earthwork were removed, including 420,000 cubic yards by mechanical means and 20,000 cubic yards by horse teams and manual labour; timber bridges totalling nearly 750 lineal feet in length were constructed; ten pipe outlets, mostly with flood doors attached, and including the laying of 360 lineal feet of 24-inch diameter concrete pipes, were installed; three houses and adjacent outbuildings were removed from the line of works to nearby sites; post and wire fencing was erected for a distance of about 5 miles; and other work, including clearing and roadwork, was carried out.

In the construction of main bridges in these Districts the Commission is now using steel joists in lieu of timber beams owing to the difficulty in obtaining suitable "A" class timber for the purpose.

Maintenance work comprised the cleaning and in parts regrading of drains for a total length of approximately 30 miles, the treatment of noxious weeds and vermin along some 60 miles of drainage reserves, and minor repairs to structures.

Privately owned suction dredges, operating under an arrangement with the Commission, have removed about 11,000 tons of coarse clean sand from the Kooweerup Main Canal during the year for commercial purposes. The total output of sand to date is approximately 308,000 tons.

Extensions to the local office at Kooweerup have been made to provide for the executive staff and to meet the requirements of rate collecting, which duty was previously carried out from Pakenham East.

RIVERS.

RIVER IMPROVEMENT.

During the last year there has been a marked increase in activity in work on the rivers of the State. An indication of this is the number of applications for financial assistance from the Rivers and Streams Fund towards the cost of the removal of obstructions from watercourses and the prevention of erosion of beds and banks of streams. During the year 78 grants of this nature, totalling £13,593, were recommended, after investigation, to the Honorable the Commissioner of Public Works, and subsequently approved by him, as against 44 grants totalling £6,808 for the previous year. This brings the total number of grants made since the commencement of the Fund in 1930 to 241, and the total amount granted to £37,051. These grants are made on a contributory basis only; where expenditure is for protection of public works such as roads or bridges, grants have been made up to two-thirds of the total cost, but where private lands only are benefited, contributions are required from the landowners concerned, the subsidy from the Fund being limited to not more than one-half the total cost of works. This Fund has enabled much valuable work to be done, but the amount granted during the last year is well in excess of the average annual revenue of the Fund, which is obtained from rentals received from water frontages. If the present demand for river works is maintained, as appears probable, it will, therefore, shortly be necessary to reduce the proportions upon which contributions from the Fund are now made.

The systematic snagging of rivers throughout the State, which was commenced towards the end of last year as an Unemployment Relief work, with a grant of £20,000 obtained by the Commission from Unemployment Relief Funds, was continued. This amount and a further grant of £10,000 from the same source have been expended on this necessary work. These amounts have, with the co-operation of the municipal councils concerned, been expended on the Avoca, Broken, Fitzroy, Gellibrand, Goulburn, King, Kiewa, Latrobe, Loddon, Macalister, Mitchell, Ovens, Powlett, Rubicon, Snowy, Tambo, Tarra, Thomson, and Yarra Rivers, and the Woori Yallock Creek, and already numerous expressions of appreciation of the effect of the work so far completed have been received by the Commission from landowners and municipal councils. If further grants are made available for the purpose, this work will be continued during the coming year.

Further surveys have been made of rivers requiring improvement. The surveys of the Goulburn River from Eildon Weir to Molesworth, and of the King River from Oxley to Cheshunt, have been completed; the survey of the Loddon River has been extended upstream to Appin; and a survey of the seriously eroded Avon River between Boisdale and Stratford is in progress.

MURRAY LEVEES.

Applications received during the year for permission to carry out works to protect lands from the effects of floods in the River Murray were dealt with by the Interstate Committee appointed for the purpose.

RIVER GAUGING.

As provided by section 32 of the *Water Act* 1928, the work of gauging and recording the flows of the principal rivers and streams of the State was continued. Weekly returns showing the volumes of water stored in reservoirs were made available for publication.

During the greater part of the year stream flow approximated to normal, but a marked diminution, particularly in northern streams, was apparent in May and June, and the discharge of the River Murray and its principal tributaries for these months was considerably below the average.

With the exception of a minor flood in August in the Goulburn River, which just reached the critical stage of 34 feet at Shepparton, only Gippsland streams were affected by serious flooding. During December a cyclonic storm in Bass Strait caused fairly heavy flooding in the Snowy River and adjacent streams, while in June heavy flooding was experienced in the Mitchell, Avon, and Macalister Rivers. Considerable damage was caused in the Mitchell and Avon Valleys, but owing to the favorable state of the Commission's Glenmaggie storage the bulk of the Macalister flood, which reached a maximum inflow rate of 40,000 cusecs, was impounded, thus reducing the discharge below the weir to a maximum rate of 9,500 cusecs.

During the year new gauging stations were established on Burrowye Creek and on Tallangatta Creek below the George's Creek junction. The number of gauging stations now in operation is 40.

DIVERSION OF WATER.

In the exercise of the right of the State to the use and flow, and to the control of water in rivers, creeks, streams, and watercourses, lakes, lagoons, swamps and marshes, supervision has been maintained over all such sources of supply.

The seasonal conditions during the greater part of last summer were more favorable to the use of water for irrigation, and resulted in an increased demand for authority to divert water as compared with the previous year.

Authorized diversions in force are:—

Yearly permits	..	..	..	..	1,654
Flood permit	..	..	..	..	1
Licences	..	..	..	..	4
Total	..	..	..	..	1,659

WATER DISTRIBUTION.

The total area of land in Victoria supplied with water for domestic and stock purposes or for irrigation, excluding the metropolitan area, amounted to 15,063,000 acres.

The supply of gravitation water was commenced in mid-August, at which time the storages, including Victoria's half share of Hume Reservoir storage, contained 1,698,000 acre feet, and was terminated late in May when the volume remaining in the storages amounted to 869,000 acre feet.

During the year a total of 507,430 acre feet of water, including 57,726 acre feet by pumping, was delivered from the Commission's channels to landholders in Irrigation Districts. This amount was exceeded only in the record season of 1929-30, when irrigation deliveries commenced during July and did not terminate until the end of May, 651,400 acre feet of water, inclusive of 50,556 acre feet by pumping, having been delivered to users.

The Irrigation Districts of Nyah, Red Cliffs, and Merbein, received 57,726 acre feet pumped direct from the River Murray, while the high level Waterworks Districts of Millewa, Coreena, Carwarp, Yelta, also involving pumping, received 23,396 acre feet.

Although the delivery of water for irrigation this season commenced earlier than usual, due to dry conditions, heavy rainfall during September, October, and April affected the demand. However, about 83½ per cent. of the water rights apportioned throughout the gravitation systems was used, while in the three districts dependent upon pumped supplies 97 per cent. of water rights was taken.

The Wimmera Mallee Waterworks Districts also received some 28,300 acre feet from the Loddon and Goulburn systems in addition to its usual supplies from the Wimmera Mallee storages in the vicinity of the Grampians.

With a view to facilitating frost action destroying the growth of water weeds, the Commission continued the practice of draining water from channel systems when practicable during the winter months. The effect on the Waranga Western Main Channel was to increase the capacity during a period of peak irrigation demand by 5½ per cent. over the maximum flow previously recorded.

CONSERVING RIVER RESOURCES.

The flow of rivers is often accepted as a gift of nature, everlasting and unvarying from year to year, but it is becoming increasingly evident that the careless management of watershed areas may, in a few generations, destroy much of the river service upon which are dependent vast irrigation and other works.

Water supply should be protected at its source on the slopes of the hills, and along the sides of narrow valleys where the rivers are supplied by springs and brooks.

Careless destruction of forests and failure to prevent and extinguish forest fires always affect the quantity and regularity of the water flowing from month to month. Forests serve to cover the ground and, by protecting it from the snow and wind, permit it to hold the rain and melting snow until water can permeate the soil and crevices of rock from whence it finally comes forth in numerous springs.

All serious students of the question are aware of the great damage that has been done in Mediterranean countries of Europe and in Asia, Africa and, of later years, America by deforestation, and the history of these countries shows that the damage, once done, may prove practically irreparable. It does not matter whether this deforestation is due to reckless clearing and timber cutting or to uncontrolled grazing and the fires that inevitably follow.

Increased erosion of these lands in mountainous catchment areas is becoming a serious problem, affecting indirectly the prosperity of the State as a whole.

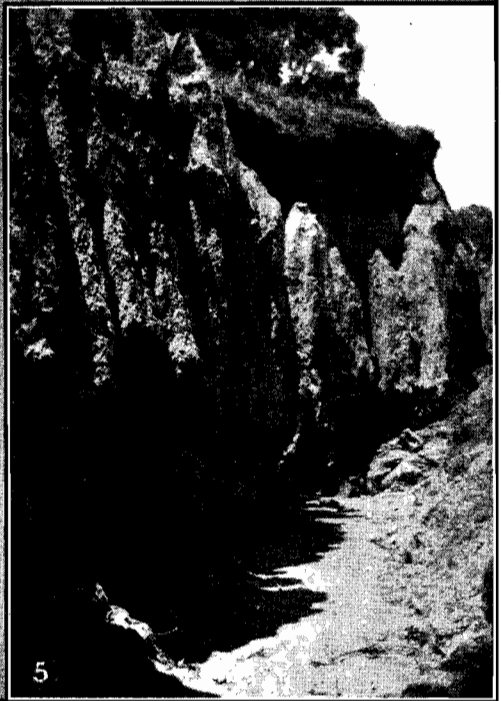
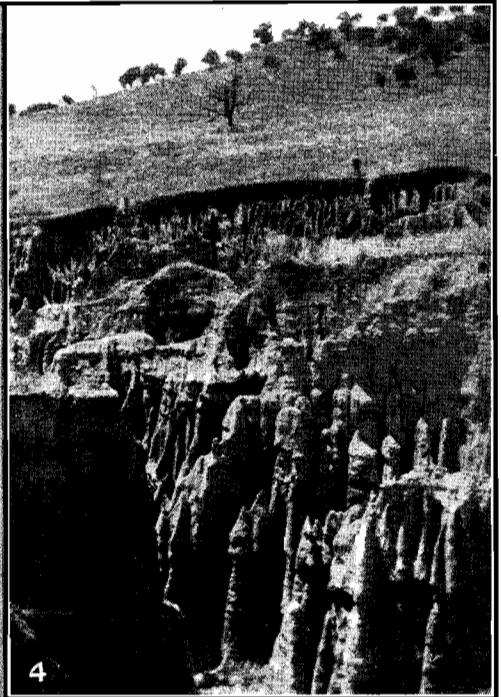
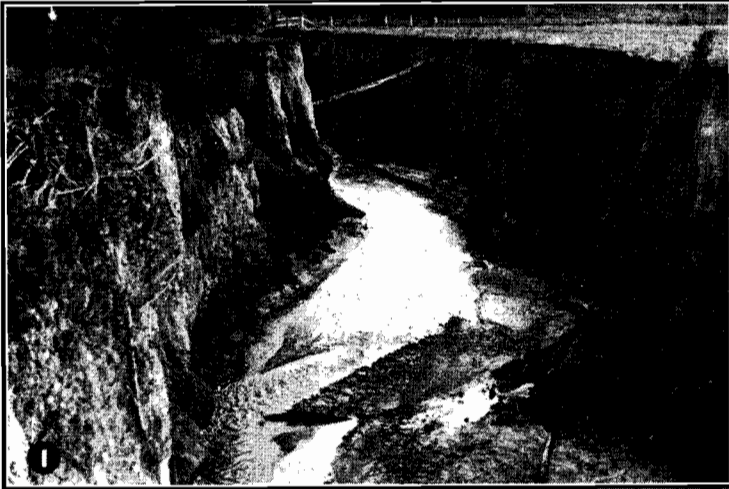
Since white settlement, the balance of nature has been largely upset, so that the natural process of wearing down by erosion of high lands and building up of alluvial river flats has been speeded up until in places it has become almost uncontrollable, and the very streams which formerly served the useful purpose of creating good land, are being changed into dangerous forces which are tending to destroy what they formerly created. Many factors have contributed to this unfortunate result; destruction of forest cover by burning or over-grazing; the clearing of steep country for settlement; damage done by rabbits and other burrowing animals; cultivation of steep friable slopes; the clearing and even cultivation of river frontages right to the edge of the streams, so destroying the natural binding of the banks; careless methods of mining and timber-getting; all these causes and others have undoubtedly contributed in varying degrees in various localities. But whatever the causes, the results are clear.

Erosion has gradually increased, imperceptibly at first, but more rapidly later, until it has become a national danger. Surface denudation on exposed slopes removes the fertile topsoil, hindering growth and facilitating erosion. Much valuable land is being lost each year by scouring and gulying on the slopes of the upper catchments, and by lateral erosion of fertile river flats. That the annual loss from this cause alone is serious may be gauged from the fact that along one river, the Avon,—and that of no great length—the loss by erosion since settlement commenced is estimated at over two thousand acres of land valued at £30 to £40 per acre. The total for the State of areas so lost is very great indeed. To make matters worse, however, the silt and sand derived from these erosions is washed down the rivers to shorten the effective life of storages or to choke the lower reaches of the streams, so that lands along these lower reaches become increasingly liable to damage by erosion or siltation, and the flood menace is greatly aggravated. One State work—Laanecoorie Reservoir—completed in 1892, has through siltation, largely the result of alluvial mining operations, been reduced in capacity from 14,000 acre feet to 6,650 acre feet within a period of little over 40 years. In addition to its effect on State works, erosion is responsible also for continuing indirect loss through reduced production from damaged lands.

During the year inspections made by Officers of the Commission in the catchment of the Upper Murray and its tributaries above Hume Reservoir, showed that there is urgent need for an assured State Policy of catchment preservation. The Commission considers that such a policy could best be formulated by a Board representative of the various interests concerned which could, after investigation, regulate grazing, land settlement, forestry operations and mining in the catchment areas.

The accompanying photographs show various phases of erosion in different parts of the State, and give some idea of the magnitude and gravity of the problem.

EROSION.



1. Eaglehawk Creek near Glengarry.
2. Avon River, Boisdale, showing Shingle Beds.
3. Avon River, Boisdale—Channel destroyed by Bank Erosion.
4. Gully Erosion in deep Granitic Soil near Towong, Upper Murray.
5. An Eroding Gully near Omeo.

WORKS CONTROLLED BY OTHER AUTHORITIES.

(Under General Supervision of the Commission.)

SEWERAGE IN COUNTRY DISTRICTS.

During the year three Sewerage Authorities were constituted, increasing the number of such bodies to twenty. The main schemes have been completed in the case of ten sewerage districts; in three districts works are in course of construction; and in four further districts the Authorities concerned are about to commence construction.

The Ballarat and Bendigo Sewerage Authorities continued to extend the reticulation sewers to serve the outer areas, and the Ballarat Sewerage Authority also added to its treatment works.

The Warrnambool Sewerage District was extended and sewers constructed to serve outlying areas of the city.

The Horsham Sewerage Authority has practically completed its works, and good progress is being made with the connexion of houses.

The Wangaratta sewerage scheme was completed and the work of connecting houses to the sewers is well advanced.

The Bairnsdale, Benalla, and Kerang Sewerage Authorities are constructing works for the sewerage of their respective towns.

The Castlemaine, Hamilton, and Shepparton Sewerage Authorities, having completed detail surveys of the towns, prepared plans and specifications for works, and tenders for their construction have been accepted.

The Dandenong Sewerage Authority completed its detail survey, prepared plans and specifications, and is now inviting tenders for the construction of works.

The Ararat Sewerage Authority, constituted during the year, is carrying out the detail survey of its district. Sewerage Authorities were also constituted at Warragul and Sale.

Applications for the constitution of Sewerage Authorities at Wodonga and Stawell were examined. Other centres contemplating sewerage are Maryborough, Portland, and Warracknabeal.

COUNTRY WATER SUPPLIES.

Many important works were carried out by Waterworks Trusts and Local Governing Bodies of which there are now 114 and 17 respectively.

The Bairnsdale Waterworks Trust commenced the construction of clarification works to improve the quality of the water supplied to the town.

The Benalla Waterworks Trust installed new electric pumping units in place of the old steam-operated plant.

The newly constituted Drouin Waterworks Trust has entered into contracts for works, and it is anticipated that water will be available to ratepayers early in the coming summer.

The Hamilton Waterworks Trust completed the enlargement of a further section of its main pipe line, and the Macedon Waterworks Trust carried out extensive improvements to the reticulation.

The First Mildura Irrigation Trust lined with concrete considerable lengths of its main channels to reduce losses by leakage and consequent damage to lands.

The Mildura Urban Water Trust extended its water supply system to serve areas taken over from the irrigation area where township settlement had taken place.

The Morwell Waterworks Trust completed the construction of an additional service basin to safeguard the town supply.

The Wangaratta Waterworks Trust carried out extensive investigations in connexion with a proposal to obtain water from underground sources owing to the unreliability of the present supply from the King River in regard to both quantity and quality.

The Yarra Junction Waterworks Trust invited tenders for the construction of a new service basin and pipe mains to provide a more adequate supply for the towns of Yarra Junction and Wesburn.

Pipe extensions and other works were carried out at Donald, Gisborne, Korumburra, Kyabram, Maryborough, Marysville, Moe, Mooroopna, Murtoa, Nagambie, Nhill, Rochester, Seymour, Shepparton, Swan Hill, Tatura, Traralgon, Tungamah, Warracknabeal, Warragul, Warrnambool, and Woodend.

Investigations were made into proposals for town water supplies at Cowes, Glenthompson, Port Fairy, and Willaura, and for improvements to works at Beechworth, Broadford, Maffra, Mansfield, Numurkah, Seymour, Swan Hill, Trafalgar, and Yarram.

LANDS UNDER IRRIGATED CULTURE.

The two Statements hereunder show the extent of Areas Irrigated—(A) during last year in detail, and (B) during the last five years totalled for purposes of comparison.

(A) STATEMENT OF THE EXTENT OF IRRIGATION AND OF AREAS OF DIFFERENT KINDS OF CROPS WATERED
—YEAR 1935-36.

Name of District.	Area Irrigated (Acres).								
	Cereals.	Lucerne grown for Pasture and Hay.	Sorghum and other Annual Fodder Crops.	Pastures, Native and Sown.	Vineyards.	Orchards or Gardens.	Fallow.	Miscellaneous.	Total.
<i>Supplied from Goulburn State Works.</i>									
Katandra .. .. .	..	2,754	167	1,430	2	46	104	..	4,503
North Shepparton .. .. .	..	2,666	83	4,016	..	47	..	57	6,869
Shepparton	166	728	70	5,277	54	6,276	25	1,076	13,672
South Shepparton .. .. .	..	1,407	18	1,459	..	22	45	198	3,149
Rodney	826	24,020	2,105	26,364	256	7,732	587	308	62,198
Stanhope	164	6,586	399	4,857	3	378	69	..	12,456
Tongala	304	6,973	283	8,299	55	1,254	287	63	17,518
Rochester	1,270	16,467	945	30,736	54	1,850	341	784	52,447
Echuca North	249	1,317	177	3,869	..	214	141	87	6,054
Dingee	35	227	24	3,071	..	28	17	..	3,402
Calivil	744	2,190	138	2,805	..	61	182	..	6,120
Tragowel Plains	7,973	2,153	3,739	35,896	..	32	190	776	50,759
Deakin	95	1,557	46	1,528	..	..	9	2	3,237
Boort	3,034	549	1,482	7,810	..	11	914	..	13,800
Totals	14,860	69,594	9,676	137,417	424	17,951	2,911	3,351	256,184
<i>Supplied from River Murray State Works.</i>									
<i>(a) Torrumbarry Weir.</i>									
Leitchville	636	818	72	3,999	..	31	..	..	5,556
Cchuna	3,843	3,164	1,061	21,554	..	175	556	9,926	40,279
Koondrook	4,153	1,503	1,951	17,577	44	693	194	296	26,411
Swan Hill	3,864	4,818	927	7,148	2,896	315	606	187	20,761
Third Lake	708	103	222	2,097	..	..	..	..	3,130
Mystic Park	1,412	266	58	3,161	..	..	130	..	5,027
Tresco	14	36	..	14	525	261	..	..	850
Fish Point	424	256	121	2,373	..	..	..	..	3,174
Kerang	4,938	754	1,725	28,596	18	12	666	70	36,773
Dry Lake	27	..	..	195	..	2	..	..	224
Kerang North-West Lakes	870	152	118	1,757	70	400	10	..	3,377
Lands supplied direct (outside Districts)	403	821	241	3,401	..	29	46	91	5,032
Totals	21,292	12,691	6,496	91,866	3,553	1,918	2,208	10,570	150,594
<i>(b) Direct from River.</i>									
Nyah	70	156	..	..	2,370	160	..	328	3,084
Red Cliffs .. .. .	..	120	..	10	10,308	577	..	..	11,015
Merbein .. .. .	..	53	..	..	6,710	553	..	28	7,344
Totals	70	329	..	10	19,388	1,290	..	356	21,443
Totals (River Murray State Works)	21,362	13,020	6,496	91,876	22,941	3,208	2,208	10,926	172,037
<i>Supplied from Loddon and Other Northern State Works.</i>									
Boort	758	137	370	1,953	..	..	228	..	3,446
Coliban	112	549	402	2,425	16	5,669	100	..	9,273
Campaspe .. .. .	..	141	..	16	..	..	..	..	157
Western Wimmera	82	180	117	164	66	1,193	..	29	1,831
Totals	952	1,007	889	4,558	82	6,862	328	29	14,707
<i>Supplied from Southern State Works.</i>									
Bacchus Marsh .. .. .	..	1,286	181	1,715	..	230	58	..	3,470
Werribee	442	1,236	270	4,245	..	325	500	1,512	8,530
Narre Warren .. .. .	..	..	..	..	..	96	..	..	96
Maffra-Sale	50	1,149	544	9,651	..	..	170	400	11,964
Totals	492	3,671	995	15,611	..	651	728	1,912	24,060
<i>Supplied from Other Works.</i>									
First Mildura District .. .. .	..	473	127	..	10,018	982	..	184	11,784
Private Diversions—Kerang (outside Districts)	169	2	93	783	..	..	..	16	1,063
Other Private Diversions throughout the State	2,000	3,500	2,500	2,100	200	4,000	100	1,600	16,000
Totals	2,169	3,975	2,720	2,883	10,218	4,982	100	1,800	28,847
Grand Totals 1935-36	39,835	91,267	20,776	252,345	33,665	33,654	6,275	18,018	495,835
Grand Totals 1934-35	63,225	95,702	25,605	220,483	66,960	..	6,732	15,519	494,226

(B) COMPARATIVE STATEMENT OF THE EXTENT OF IRRIGATION 1931-32 TO 1935-36.

Source of Supply.	Area under Irrigation (Acres).				
	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.
Goulburn State Works	212,284	243,378	217,105	266,331	256,184
River Murray State Works	136,254	158,223	151,714	163,547	172,037
Loddon and other Northern State Works	11,120	11,621	14,496	18,844	14,707
Southern State Works	28,094	31,042	23,687	18,294	24,060
Mildura and Private Diversions	30,663	30,452	28,322	27,210	28,847
Totals	418,415	474,716	435,324	494,226	495,835

PROGRESS IN IRRIGATION DISTRICTS.

The Victorian crop of dried vine fruits for 1936 season amounted to 38,300 tons and was some 4,000 tons less than the average output for the previous three years. This reduction was due to severe losses of currants caused by unfavorable weather conditions during harvesting. Notwithstanding these losses, the Victorian crop of dried vine fruits represented approximately 62 per cent. of the total Australian output. Satisfactory sales both as regards tonnage and prices have been effected in export markets, and out of a total available export of some 28,000 tons to the United Kingdom from the whole of Australia, less than 3,500 tons of the season's crop remain unsold. It is expected that this small balance will be cleared in the course of a few weeks; thus Australian exporters will not be able to offer further quantities on the London market until about the end of April next year, when the 1937 season's crop is available.

The seriousness of a break of some months in the continuity of supplies of Australian fruit on the London market is a factor which demands careful consideration in connexion with the question of further plantings of dried vine fruits in irrigation areas. Further factors which call for consideration in this regard are the substantial increases which have been made in recent years in exports to markets, other than the United Kingdom, which now absorb 20,000 tons, as compared with 10,000 tons six years ago; and the wastage of fruit due to frosts and other adverse seasonal conditions which militate against the marketing of the full production of which the vines are capable.

The recent decision of the Privy Council which has rendered invalid the legislation by which control of interstate trade in dried fruits and butter was exercised by the Commonwealth Government, has created a great deal of uneasiness in those industries. Measures for preventing the disorganized marketing conditions which might follow upon the present legislative position are now receiving consideration by the Commonwealth and State Governments.

The Victorian production of canned apricots, peaches, and pears for the 1936 season amounted to more than 3,000,000 dozen cans, or 68 per cent. of the Australian output. This figure represents a record production for Victoria and is approximately 23 per cent. greater than for the preceding year. The quantity of apricots, peaches, and pears packed in the Goulburn Valley was approximately 65 per cent. of the Victorian output and represented some 19,000 tons of fresh fruit. In addition, considerable quantities of canning fruit were also despatched to metropolitan canners from the Goulburn Valley. Severe losses of peaches were again experienced by growers owing to the ravages of the Oriental peach moth, measures for the control of which are being actively undertaken.

Exports of Australian canned fruits were well maintained during 1935, and amounted to 2,342,530 dozen cans, or slightly less than for the previous year, when the record export of 2,656,000 dozen cans was effected. A gratifying feature was that exports to Canada were 50 per cent. greater than in the preceding year.

In view of the recent firming of London prices, market prospects for the coming season appear to be satisfactory and no difficulties are anticipated in connexion with the processing of the coming crops.

The production of citrus fruits in irrigation districts during the 1935-36 season amounted to 721,000 bushels, a slight decrease as compared with the figure for the previous year, viz., 728,000 bushels. Reduced crops were, however, common to all citrus-producing districts, the percentage of loss being much greater in non-irrigated areas. As the total output of citrus fruits in the State for 1935-36 amounted to 823,400 bushels, it will be seen that the irrigation districts provided approximately 87 per cent. of the citrus production.

The report of the Standard Herd Test for 1935-36, conducted by the Department of Agriculture, again affords striking proof of the benefits derived from dairying under irrigated conditions. This test was notable for the remarkably high butter-fat yields recorded despite the very unfavorable seasonal conditions for pasture growth and summer crops. The position of Reserve Champion Herd in Section 1 of the test for herds of between 10 and 17 cows was obtained by a herd from the Stanhope Irrigation District, the average production of butter-fat (613.69 lb.) being only 0.3 lb. below that of the Champion Herd. In this section also, nine of the leading fifteen positions were occupied by herds from irrigated areas. In Section 2 of the test for herds of between 18 and 25 cows, first place was secured by a herd from the Tongala Irrigation District, whilst three of the leading five herds in this section were grazed in irrigation districts. In Section 3 also, for herds of more than 25 cows, two of the leading five herds came from irrigated farms.

As indicating the expansion which has taken place as a result of irrigation in the Werribee Shire, it may be pointed out that the population of the irrigated portion of the Shire, which now averages 88 persons per square mile, has doubled since 1929. Land values in the Werribee irrigation settlement are well maintained, recent sales having been made at prices ranging up to £130 per acre. The rentals of irrigated properties average approximately £5 per acre per annum.

PART III.—ADMINISTRATION AND FINANCE.

ADMINISTRATION.

EXTENSIONS AND EXCISIONS OF DISTRICTS.

The Koondrook Irrigation District was extended to include about 20,300 acres excised from the Gannawarra Irrigation District. Subsequently, the remaining portion of the Gannawarra District, about 37,700 acres, and the Cohuna District were united to form one district, known as the Cohuna Irrigation District.

An area of 157 acres of land unsuitable for irrigation was excised from the Mystic Park Irrigation District.

The Tyrrell, Kia, and Baring Waterworks Districts were united to form one district, and the Tyrrell West and Tyrrell Waterworks Districts constituted thereout. An area of about 12,400 acres which had not previously been included in a constituted district was added to the latter district.

Two areas comprising 1,090 acres were excised from the Long Lake Waterworks District as the owners of these lands obtain supplies at their own expense from other sources.

Areas of 89,000 acres and 3,000 acres of vacant Crown lands, which have been made available for grazing purposes by the Lands Department, were excised from the Millewa and Millewa Central Waterworks Districts respectively.

The boundaries of the Red Cliffs Urban Division were amended to include an area of about 30 acres of urban lands served by recent extensions of the reticulation system and to exclude a small area of irrigated land.

Minor amendments were made in the boundaries of the Dingee Urban Division to coincide with the title boundaries of certain allotments.

PROPOSED DISTRICTS.

It is proposed to constitute a waterworks district to be known as the Otway Waterworks District to embrace the Western District towns of Camperdown, Terang, and Cobden, which will be supplied by the works of the Otway Water Scheme now under construction.

STAFF.

The Commission desires to place on record its appreciation of the valuable services rendered by the members of the staff throughout the year, in connexion with the administration of the important works and districts under the Commission's control and the investigations being carried out.

In the Head Office, Mr. H. L. Boorman, Draughtsman, was appointed to the position of Estates Officer, following the retirement of Mr. A. W. Roberts, and Mr. H. W. McCay, B.C.E., was appointed Engineer for Waterworks Trusts and Sewerage Authorities within the Main Urban Supplies and Trusts Division. In this Division also, Mr. W. G. Sides, District Engineer, was appointed Executive Engineer for Coliban District works, with headquarters at Bendigo.

Mr. H. F. Byham, C.E., who was District Engineer and Secretary at Swan Hill, was transferred to the position of District Engineer at Shepparton, and Mr. J. D. Wallis was transferred from Tresco to Swan Hill as District Officer. To fill the vacancy thus caused Mr. R. T. Squire was transferred from Cohuna to Tresco as District Officer.

Mr. C. L. Sanders, C.E., L.S., Assistant Engineer, Red Cliffs District Drainage Works, was transferred to the position of Resident Engineer on the Western District Water Supply Scheme, and Mr. B. W. Scharp, B.C.E., Assistant Engineer, Head Office, was also transferred to a similar position on the Mornington Peninsula District Extension Works.

In connexion with the construction of main channels for the Murray Valley Irrigation Scheme, Mr F. A. Nevill, C.E., A.M.I.E. (Aust.), was appointed to the position of Executive Engineer, and Mr. G. A. Cahir was transferred from the Engineering Staff at Rochester to Yarrawonga as Works Superintendent.

Mr. A. W. Hayes was appointed District Secretary and Collector at Birchip, in place of Mr. N. S. Chalk, transferred to Bendigo, and Mr. E. P. Watson was appointed to a similar position at the Commission's new centre at Sea Lake.

At Dandenong, Mr. A. K. Titcher, District Secretary, resigned, and Mr. L. J. Taylor was transferred from Bacchus Marsh to fill the vacancy, the position at Bacchus Marsh being filled by Mr. F. M. Engel, who was appointed District Secretary in addition to his duties as District Officer.

Mr. A. Grantley was appointed to the position of District Officer and Secretary at Kooweerup.

The Commission records with deep regret the deaths of Mr. J. F. Connors, Mr. G. Lucas, Mr. P. F. Murphy, and Mr. E. S. Stevens.

The following officers have retired since the publication of the last Report :—J. T. Harvey, Senior Foreman ; W. H. Hodgson, Water Bailiff ; G. H. Irvine, Head Water Bailiff ; D. McColl, Head Water Bailiff ; and S. J. Tucker.

FIRE INSURANCE.

The Commission has continued its policy of carrying the fire risk on its own buildings. The premiums thus saved now amount to £13,207.

VALUATIONS, RATES, FLOOD PROTECTION CHARGES, 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, flood protection charges, and compulsory irrigation charges made in all Districts. 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 Tyrrell West Waterworks District, and the Urban Waterworks District of Walpeup.

The Cohuna and Gannawarra Irrigation and Water Supply Districts were amalgamated to form one District known as Cohuna Irrigation and Water Supply District.

The Tyrrell, Baring, and Kia Waterworks Districts were amalgamated to form one District, which was then subdivided into the Tyrrell and Tyrrell West Waterworks Districts.

In 39 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. The Lower Kooweerup, Cardinia, and Kanyapella Flood Protection Districts, where the charging is on an acreage basis, were similarly divided into divisions. As heretofore in the Urban portion of the Coliban system, a minimum and tapering rate has been made, while the Carrum Waterworks Trust District has, as in past years, been arranged in five rating divisions in accordance with the relative benefits derived by such lands from the works.

Under the powers conferred by Section 62 of the *Water Act* 1928, a minimum annual rate on the basis of £9 12s. per 640 acres was fixed by the Commission on the first division lands of the Birchip, Carwarp, Karkarooc, Long Lake, Sea Lake, Tyntynder, Tyrrell, Tyrrell West, Upper Western Wimmera, Upper Wimmera United, Wimmera United, Wycheproof, and Yelta Waterworks Districts, while in the Carwarp Central District the minimum was fixed at £14 8s. per 640 acres, in the Coreena, Dering, Eureka, Hindmarsh, Millewa, Millewa Central, and Walpeup Central Districts at £16 16s. per 640 acres, and in the Walpeup West Bore District at £4 16s. per 640 acres.

In 22 Districts the Commission made and levied compulsory irrigation charges, in five Flood Protection Districts a rate or charge was made, and in three Waterworks Trusts Districts taken over by the Commission, rates were also made.

By direction of the Government all rates in respect to domestic and stock supplies in Irrigation and Water Supply and Waterworks Districts were reduced by 10 per cent.

Details of all rates and charges made are set out hereunder:—

A.—VALUATIONS, RATES, AND FLOOD PROTECTION CHARGES.

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 £1 made during Year ended 30th June, 1936, as reduced 10 per cent.	Period of Rate.	Estimated Number of Persons dwelling in District
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IRRIGATION AND WATER SUPPLY DISTRICTS.

	Valuation by Commission.	Divisions.				
		1st.	2nd.	3rd		
		s. d.	s. d.	s. d.		
1. BACCHUS MARSH ..	14,696	0 11	0 5½	..	1st July, 1935, to 30th June, 1936	623
2. BOORT ..	14,687	1 9½	0 10¾	..		576
3. CALIVIL ..	14,498	0 11	..	..		500
4. CAMPASPE ..	8,193	1 9½	0 10¾	0 5¾	..	576
5. COHUNA ..	32,482	1 9½	0 10¾	0 5¾	..	1,414
6. DEAKIN ..	45,238	1 6	0 9	0 4½	..	1,580
7. DINGEE ..	3,070	0 11	..	..	..	200
8. DRY LAKE ..	250	(No rate made)			..	13
9. ECHUCA NORTH ..	5,171	0 11	0 5½	..	1st July, 1935, to 30th June, 1936	568
10. FISH POINT..	1,364	0 11	..	..	..	60
11. KATANDRA ..	8,070	0 11	..	..	..	480
12. KERANG ..	16,041	2 1	1 0½	0 6¼	..	1,190
13. KOONDRICK ..	22,986	1 9½	0 10¾	..	..	1,130
14. LEITCHVILLE ..	7,718	1 9½	0 10¾	..	..	258
15. MAFFRA-SALE ..	48,613	0 11	0 5½	..	..	1,830
16. MERBEIN ..	31,044	0 11	..	..	..	3,000
17. MYSTIC PARK ..	3,197	0 11	..	..	..	124
18. NORTH SHEPPARTON ..	44,500	0 11	0 5½	..	..	1,300
Totals (carried forward)	321,818					15,422

A.—VALUATIONS, RATES, AND FLOOD PROTECTION CHARGES—*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 £1 made during year ended 30th June, 1936, as reduced 10 per cent.	Period of Rate.	Estimated Number of Persons dwelling in District.
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IRRIGATION AND WATER SUPPLY DISTRICTS—*continued*.

	Valuation by Commission. £	Divisions.				
		1st.	2nd.	3rd.		
		s. d.	s. d.	s. d.		
Brought forward ..	321,818					15,422
19. NYAH ..	7,221	0 11	..	..	1st July, 1935, to 30th June, 1936	1,000
20. RED CLIFFS ..	23,749	0 11	..	..	" " "	2,800
21. ROCHESTER ..	59,809	0 11	0 5½	0 2¾	" " "	4,190
22. RODNEY ..	132,815	0 11	0 5½	0 2¾	" " "	5,323
23. SHEPPARTON ..	34,707	0 11	..	..	" " "	2,430
24. SOUTH SHEPPARTON ..	14,675	0 11	0 5½	..	" " "	450
25. STANHOPE ..	15,902	0 11	..	..	" " "	780
26. SWAN HILL ..	22,136	0 11	..	..	" " "	1,885
27. THIRD LAKE ..	2,184	1 9½	..	..	" " "	155
28. TONGALA ..	27,484	0 11	..	..	" " "	2,000
29. TRAGOWEL PLAINS ..	40,626	0 11	0 5½	0 2¾	" " "	1,550
30. TRESCO ..	1,797	2 3	1 1½	..	" " "	242
31. WERRIBEE ..	17,597	0 11	..	..	" " "	1,370
Totals ..	722,520					39,597

WATERWORKS DISTRICTS.

32. AXE CREEK ..	1,659	1 9½	..	..	1st July, 1935, to 30th June, 1936	260
33. BIRCHIP ..	38,000	2 1	1 0½	0 6¼	" " "	2,776
34. CARWARP ..	8,767	3 5	1 8½	0 10¼	" " "	600
35. CARWARP CENTRAL ..	1,100	4 6	2 3	..	" " "	200
36. COREENA ..	9,688	4 6	2 3	1 1½	" " "	260
37. DERING ..	2,361	5 5	2 8½	1 4¼	" " "	225
38. EUREKA ..	1,706	3 7	1 9½	0 10¾	" " "	110
39. HARCOURT ..	8,657	1 4	..	..	" " "	600
40. HINDMARSH ..	8,485	3 2	1 7	0 9½	" " "	236
41. KARKAROOC ..	126,815	1 11	0 11½	0 5¾	" " "	4,750
42. KERANG N.W. LAKES	7,597	0 5	..	..	" " "	580
43. LONG LAKE ..	67,204	2 6½	1 3¼	0 7½	" " "	2,295
44. MILLEWA ..	28,599	4 6	2 3	1 1½	" " "	1,700
45. MILLEWA CENTRAL ..	13,382	6 9	3 4½	1 8¼	" " "	800
46. NARRE WARREN ..	2,744	0 11	..	..	" " "	130
47. SEA LAKE ..	61,208	2 5	1 2½	0 7¼	" " "	2,487
48. TYNTYNDER ..	51,878	3 0	1 6	0 9	" " "	2,700
49. TYRRELL ..	44,902	3 0	1 6	0 9	" " "	2,730
50. TYRRELL WEST ..	62,305	3 0	1 6	0 9	" " "	2,950
51. UPPER WEST'N WIMMERA	61,882	1 4	0 8	0 4	" " "	1,704
52. UPPER WIMMERA UNITED	100,073	1 4	0 8	0 4	" " "	2,750
53. WALPEUP CENTRAL ..	8,243	4 11	2 5½	1 2¾	" " "	300
54. WALPEUP WEST ..	55,665	0 8	0 4	..	" " "	2,100
55. WERRIBEE ..	6,618	1 9½	..	..	" " "	150
56. WESTERN WIMMERA	265,361	1 0½	0 6¼	0 3½	" " "	8,830
57. WIMMERA UNITED ..	302,063	1 0½	0 6¼	0 3½	" " "	7,800
58. WYCHEPROOF ..	72,537	2 1	1 0½	0 6¼	" " "	2,964
59. YELTA ..	3,033	3 0	..	..	" " "	50
Totals ..	1,422,532					53,037

WATERWORKS TRUSTS.

60. LODDON UNITED ..	68,528	0 8	0 4	0 2	1st January, 1936, to 31st December, 1936	3,300
	Municipal Valuation.					
	£			s. d.		
61. CARRUM ..	22,712	1st Division		3 8	" " "	1,480
		2nd Division		1 10		
		3rd Division		1 0		
		4th Division		0 10		
		5th Division		0 3		
62. MITTAMOO (Urban) ..	1,005			4 0	" " "	190
Totals ..	92,245					4,970

A.—VALUATIONS, RATES, AND FLOOD PROTECTION CHARGES—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 £1 made during year ended 30th June, 1936.	Period of Rate.	Estimated Number of Persons dwelling in District.
URBAN DIVISIONS AND DISTRICTS.				
	Municipal Valuation. £	s. d.		
63. ANGLESEA	2,588	.. .. 2 6	1st July, 1935, to 30th June, 1936	250
64. ANTWERP	205	.. .. 5 0	" " "	78
65. BACCHUS MARSH ..	15,663	.. .. 1 6	" " "	1,770
66. BARWON HEADS AND OCEAN GROVE	10,154	.. .. 2 6	" " "	1,148
67. BERRIWILLOCK ..	1,361	.. .. 3 6	" " "	150
68. BERWICK	5,772	.. .. 2 1	" " "	900
69. BEULAH	2,860	.. .. 3 0	" " "	440
70. BIRCHIP	5,989	.. .. 1 8	" " "	1,067
71. BITTERN	657	.. .. 3 1	" " "	90
72. BRIM	1,009	.. .. 4 6	" " "	180
73. BUNYIP	2,906	.. .. 2 4	" " "	420
74. CARRUM	76,080	.. .. 1 5	" " "	6,410
75. CARWARP	191	.. .. 5 0	" " "	45
76. CHILLINGOLLAH ..	395	.. .. 5 0	" " "	110
77. CHINKAPOOK	590	.. .. 5 0	" " "	120
78. COHUNA	8,563	.. .. 2 0	" " "	1,000
79. COROP	185	.. .. 2 0	" " "	85
80. CRANBOURNE	3,084	.. .. 2 0	" " "	250
81. CRIB POINT	3,242	.. .. 3 1	" " "	545
82. CULGOA	1,255	.. .. 3 6	" " "	150
83. DANDENONG	59,353	.. .. 1 3	" " "	4,725
84. DIMBOOLA	13,454	.. .. 1 11	" " "	1,684
85. DINGEE	435	.. .. 4 0	" " "	90
86. DOOEN	169	.. .. 2 0	" " "	30
87. DRYSDALE	2,096	.. .. 2 6	" " "	336
88. FRANKSTON	54,894	.. .. 1 4	" " "	5,405
89. GARFIELD	2,634	.. .. 2 4	" " "	300
90. HASTINGS	1,921	.. .. 3 0	" " "	460
91. HEYFIELD	4,510	.. .. 2 6	" " "	525
92. HICKSBOROUGH ..	457	.. .. 3 9	" " "	100
93. HOPETOUN	5,063	.. .. 3 0	" " "	700
94. JEPARIT	7,598	.. .. 2 2	" " "	875
95. JUNG JUNG	898	.. .. 3 0	" " "	171
96. KOONDRÖÖK	3,185	.. .. 2 9	" " "	500
97. LAKE BOGA	2,123	.. .. 3 0	" " "	382
98. LALBERT	867	.. .. 5 0	" " "	146
99. LASCELLES	690	.. .. 5 0	" " "	130
100. LEITCHVILLE ..	1,941	.. .. 3 7	" " "	250
101. LOCKINGTON	1,807	.. .. 3 3	" " "	240
102. LONGWARRY	1,612	.. .. 2 9	" " "	200
103. MANANGATANG ..	2,011	.. .. 3 6	" " "	300
104. MARNOO	1,130	.. .. 5 0	" " "	250
105. MARONG	897	.. .. 3 0	" " "	300
106. MERBEIN	9,804	.. .. 2 9	" " "	1,050
107. MERINGUR	363	.. .. 5 0	" " "	100
108. MINYIP	6,117	.. .. 2 10	" " "	750
109. MORNINGTON	35,074	.. .. 1 6	" " "	2,260
110. MOUNT MARTHA ..	6,180	.. .. 2 1	" " "	210
111. MURRABIT	231	.. .. 5 0	" " "	35
112. NANDALY	352	.. .. 5 0	" " "	114
113. NATIMUK	3,255	.. .. 1 6	" " "	580
114. NEWSTEAD	2,943	.. .. 3 0	" " "	400
115. NORTH WONTHAGGI ..	3,907	.. .. 2 0	" " "	1,000
116. NULLAWIL	814	.. .. 5 0	" " "	115
117. NYAH	687	.. .. 2 6	" " "	170
118. NYAH WEST	3,891	.. .. 2 9	" " "	340
119. OUYEN	9,277	.. .. 3 0	" " "	1,061
120. PAKENHAM	5,228	.. .. 2 1	" " "	700
121. PATCHEWOLLOCK ..	431	.. .. 5 0	" " "	156
122. PIANGIL	1,269	.. .. 3 6	" " "	260
123. PORTARLINGTON ..	3,215	.. .. 2 6	" " "	550
124. PYRAMID HILL	3,504	.. .. 3 0	" " "	520
125. QUAMBATOOK	3,235	.. .. 2 10	" " "	394
126. QUEENSLIFF AND POINT LONSDALE	21,623	.. .. 2 7	" " "	3,100
Totals (carried forward)	433,894			47,172

A.—VALUATIONS, RATES, AND FLOOD PROTECTION CHARGES—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 £1 made during year ended 30th June, 1936.	Period of Rate.	Estimated Number of Persons dwelling in District.
URBAN DIVISIONS AND DISTRICTS—continued.				
	Municipal Valuation. £	s. d.		
Brought forward ..	433,894	.. ..	1st July, 1935, to 30th June, 1936	47,172
127. RAINBOW ..	7,910	.. .. 2 2		993
128. RED CLIFFS ..	13,519	.. .. 2 3		1,000
129. RUPANYUP ..	5,598	.. .. 2 10		650
130. SEA LAKE ..	6,985	.. .. 2 0		630
131. SOMERVILLE ..	1,857	.. .. 2 6		250
132. SOUTH FRANKSTON ..	11,311	.. .. 2 6		790
133. SPEED ..	321	.. .. 5 0		90
134. SPRING VALE ..	29,560	.. .. 1 6		2,890
135. STANHOPE ..	1,105	.. .. 4 0		300
136. TEMPY ..	284	.. .. 5 0		130
137. TORQUAY ..	5,712	.. .. 2 6		820
138. ULTIMA ..	2,550	.. .. 3 0		353
139. WAITCHIE ..	343	.. .. 5 0		110
140. WALPEUP ..	895	.. .. 4 6		165
141. WATCHEM ..	1,742	.. .. 3 3		220
142. WERRIMULL ..	695	.. .. 5 0		135
143. WONTHACGI ..	32,746	.. .. 1 6		8,000
144. WOOMELANG ..	1,785	.. .. 3 6		410
145. WOORINEN ..	532	.. .. 4 0		80
146. WYCHEPROOF ..	7,540	.. .. 2 0		810
147. YAAPEET ..	241	.. .. 5 0		106
Totals ..	567,125	.. ..	.. ..	66,104

COLIBAN SYSTEM.

	£	s. d.		
148. COLIBAN ..	381,855	On Valuations 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, 1935, to 30th June, 1936	60,000
GRAND TOTALS ..	3,186,277	.. ..	.. ..	223,708

FLOOD PROTECTION DISTRICTS.

	Valuation by Commission. £	s. d.		
149. ECHUCA (HIGH-ST.) ..	1,466	.. .. 1 0	1st July, 1935, to 30th June, 1936	80
150. CARDINIA ..	35,137	1st Div. (p. ac.) 3 0 2nd Div. (p. ac.) 1 6 3rd Div. (p. ac.) 0 9	.. ..	800
151. LOWER KOOWEERUP	56,458	1st Div. (p. ac.) 2 0 2nd Div. (p. ac.) 1 0 3rd Div. (p. ac.) 0 6	.. ..	2,200
152. KANYAPELLA ..	14,494	1st Div. (p. ac.) 0 7 2nd Div. (p. ac.) 0 3½	.. ..	50
153. LOCH GARRY ..	40,886	Per acre .. 0 6	.. ..	200
Totals ..	146,975	.. ..	.. ..	3,330

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 ..	6,677	3,356	3,356	22s. 6d.	1st October, 1935, to 30th April, 1936
2. COBUNA ..	71,921	36,467	36,621	6s.	15th August, 1935, to 15th May, 1936
3. DINGEE ..	8,866	4,446	4,446	7s.	" " " "
4. ECHUCA NORTH ..	13,793	5,432	5,491	7s. 6d.	" " " "
5. FISH POINT ..	6,379	3,834	1,884	8s.	" " " "
6. KOONDROOK ..	81,211	24,376	24,425	6s.	" " " "
7. LEITCHVILLE ..	13,832	11,980	4,181	7s.	" " " "
8. MAFFRA-SALE ..	42,077	19,440	19,331	10s.	1st September, 1935, to 30th April, 1936
9. MERBEIN ..	8,496	7,698	19,244	22s.	1st August, 1935, to 30th April, 1936
				Min. 55s. per acre	
10. MYSTIC PARK ..	20,249	9,024	3,056	6s.	15th August, 1935, to 15th May, 1936
11. NYAH ..	3,761	3,105	7,704	20s.	1st August, 1935, to 30th April, 1936
				Min. 50s. per acre	
12. RED CLIFFS ..	30,966	11,160	27,900	28s.	" " " "
				Min. 70s. per acre	
13. ROCHESTER ..	171,986	54,388	54,656	6s.	15th August, 1935, to 15th May, 1936
14. RODNEY ..	267,937	191,523	61,633	6s.	" " " "
15. SHEPPARTON ..	24,583	21,730	21,730	6s.	" " " "
16. SOUTH SHEPPARTON	33,752	18,201	4,504	8s.	" " " "
17. STANHOPE ..	25,992	18,562	18,050	6s.	" " " "
18. SWAN HILL ..	36,431	21,954	21,954	6s.	" " " "
19. THIRD LAKE ..	11,488	3,995	2,664	7s.	" " " "
20. TONGALA ..	45,485	28,443	28,386	6s.	" " " "
21. TRAGOWEL PLAINS	216,874	148,694	31,389	7s.	" " " "
22. WERRIBEE ..	9,960	8,073	8,096	12s.	1st October, 1935, to 30th April, 1936

C.—SALES OF WATER CHARGES.

Irrigation and Water Supply District.	Area of District in Acres.	Unit Charge per Acre foot for Water Supplied as Sales.	Period of Charge.
1. BOORT	80,018	7s.	1st July, 1935, to 30th June, 1936
2. CALIVIL	60,409	10s.	" " " "
3. DEAKIN	163,970	6s.	" " " "
4. KATANDRA	14,265	10s.	" " " "
5. KERANG	84,840	4s.	" " " "
6. NORTH SHEPPARTON	116,343	10s.	" " " "
7. TRESKO	3,482	20s.	" " " "
8. CAMPASPE	19,767	Charge per acre per watering } Lucerne 1s. when supplies } Grass 1s. available, with } Crop 2s. minimum 10s. } Orchard 2s. per watering } Fodder 2s. (Half rates 1st June to 30th August)	" " " "

FINANCE.

RECEIPTS, DISBURSEMENTS, AND ESTIMATES.

The Revenue Collections for the financial year 1935-36 amounted to £525,340 as against a total of £472,239 for the year 1934-35. The expenditure from Annual Votes on works under the control of the Commission for the financial year was £308,579 as against £301,734 in 1934-35. The amount available from the Commission's Revenue to meet interest and exchange was £216,261 as against £170,005 in 1934-35.

The payments to the Treasury as interest on loans for Water Supply purposes by Waterworks Trusts and Local Water Authorities were £83,106 as against £81,764 in 1934-35, bringing the total amount available from all sources towards interest and exchange to £299,367 as against £251,769 in 1934-35.

To provide for depreciation of the Commission's perishable works a nominal sum of £500 only was placed to the credit of the Water Supply Works Depreciation Fund.

It should be pointed out that, in the summary of expenditure hereunder, additional to the Annual Vote provision for Maintenance, Repairs, Water Distribution and Management, a sum of £79,050 was expended from Unemployment Relief Funds upon Maintenance and Repairs of which £37,304 was expended in Irrigation and Water Supply Districts, £37,793 in Waterworks Districts, and £3,953 on Drainage Works, making a total expenditure of £387,629 under this heading for the financial year.

If adequate provision were to be made for the maintenance of all works at full efficiency as well as for depreciation, it is estimated that the sum required for all purposes for the year 1936-37 would be £474,423, which would include a payment of £47,552 to an interest bearing Depreciation Fund. The amount available for the financial year 1936-37 is, however, only £304,204.

The practice of restricting the maintenance item in the Vote provision to an amount which will barely keep the works in service has undoubtedly resulted in the effective life of such works being shortened, thereby involving the State ultimately in a greater expenditure.

The amount at credit of the Water Supply Works Depreciation Fund at the 30th June last was only £12,882 to provide for the renewal of all works of a perishable nature, the cost of which represents a substantial portion of the State's total capital liability of £24,970,619 in respect of Water Supply. The position must be faced in the near future that extensive renewals, particularly of structures, will be necessary in order to maintain essential services, and, with only a small sum available in Depreciation Fund, the cost of such renewals must be met either from Consolidated Revenue or from Loan Moneys. The former course would result in substantial amounts being required at irregular intervals, thus causing serious disturbances to the Budgetary equilibrium of the State. On the other hand, the latter course would involve a continuous increase in Capital Liability without any increase in the revenue-earning capacity of the works, as redemption paid by the State under the Financial Agreement Act would not, in general, redeem loans within the period in which these replacements would be required.

It is obvious, therefore, that serious consideration must be given to the question of making, in the future, adequate provision for both maintenance and renewal of the assets which have been created by the Loan Expenditure of the State upon its Water Supply undertakings.

SUMMARY OF FINANCIAL POSITION.

REVENUE, 1935-36—

Total of Commission's Revenue for year	£	525,340
Total paid to Treasury as Interest on Loans by Waterworks Trusts and Local Water Authorities		83,106
		<u>608,446</u>

EXPENDITURE, 1935-36—

Expended for year on Maintenance, Repairs, Water Distribution and Management—

From Annual Votes	308,579
From Unemployment Relief Funds	79,050
	<u>387,629</u>

IRRIGATION DISTRICTS—

Working Expenses	142,691
Interest Charges on Capital allotted	208,359
	<u>351,050</u>
Revenue Collections (as against £228,347 in 1934-35)	255,298
Net Loss for Year	<u>95,752</u>

COLIBAN DISTRICT—

Working Expenses	14,650
Interest Charges on Capital	66,268
	<u>80,918</u>
Revenue Collections (as against £45,701 for 1934-35)	49,656
Net Loss for Year	<u>31,262</u>

WATERWORKS DISTRICTS—

Working Expenses—	
Rural Districts	100,346
Urban Districts	26,038
Interest Charges on Capital allotted—	
Rural Districts	136,689
Urban Districts	60,290
	<u>323,363</u>
Revenue Collections—	
Rural Districts	124,029
Urban Districts	76,890
	<u>200,919</u>
(As against £183,031 in 1934-35)	
Net Loss for Year	<u>122,444</u>

FLOOD PROTECTION DISTRICTS—

Working Expenses	1,391
Interest and Redemption Charges on Capital Allotted	7,453
	<u>8,844</u>
Revenue Collections (as against £2,763 in 1934-35)	6,633
Net Loss for Year	<u>2,211</u>

CAPITAL EXPENDITURE, 1935-36—

Expended for year on Capital Works of the Commission—

From Loan Funds	275,846
From Unemployment Relief Funds	371,866
	<u>647,712</u>

	£	£
LOAN LIABILITY—		
Net Loan Liability of State for Works of Water Supply at 30th June, 1936 ..		24,970,619
<i>Represented by—</i>		
Works at debit of Authorities	13,638,758	
Unallotted Main Supply Works	6,037,375	
River Murray Waters Agreement Works	2,664,527	
Amounts Written Off 37 years ago	1,262,662	
Free Headworks declared free by Parliament over 30 years ago ..	1,369,876	
Loan Flotation Expenses—discounts and commissions ..	745,224	
Loan Moneys in hand	89,503	
	25,807,925	
Less net amount from National Debt Sinking Fund	837,306	
		24,970,619
INTEREST AND EXCHANGE		
The total interest due on the Loan Liability for 1935–36 is ..	1,031,355	
To which is to be added exchange payable on overseas interest ..	100,931	
		1,132,286
<i>Debitable to—</i>		
Works at debit of Authorities	600,464	
Unallotted Main Supply Works	265,804	
River Murray Agreement Works	117,309	
Amounts Written Off, including Geelong	55,590	
Free Headworks	60,311	
Loan Flotation Charges	32,808	
	266,018	
		1,132,286
Amount available from Revenue to meet Interest—		
Commission	216,261	
Waterworks, Trusts, &c.	83,106	
		299,367
Balance Unpaid		832,919
DEFICIENCY FOR YEAR—		
Balance of Interest unpaid as above		832,919
Add amount debited to Commission by Treasury for Pensions ..		12,161
Gross Deficiency on Water Supply Undertakings		845,080
<i>Included in this is—</i>		
Interest and Exchange on River Murray Agreement Works, Free Headworks, Amounts Written Off, and Loan Flotation Charges	266,018	
Loss on Coliban District where rate is limited in lieu of Writing Off	31,262	
General Services rendered by Commission chargeable to whole State	13,221	
Interest chargeable to Districts controlled by the Commission is fixed by the Water Act at 4 per cent. on practically all capital. The percentage charged by the Treasury, inclusive of exchange, is £4 8s. 1d., and this represents approximately a sum of ..	45,503	
		356,004
Net Deficiency on Commission's Activities		489,076

RECEIPTS AND DISBURSEMENTS.

STATEMENT of Moneys received and disbursed during the year ended 30th June, 1936.

Works.	Receipts.	Disbursements (exclusive of Interest, Redemption and Depreciation (Charges) from Annual Votes and Special Appropriation.	Excess.	
			Receipts over Net Disbursements.	Disbursements over Receipts.
	£	£	£	£
Coliban	49,656	14,650	35,006	..
Other State Works—				
Broken River .. .. .	..	74	..	74
Goulburn	778	2,672	..	1,894
Kow Swamp	17	573	..	556
Lake Lonsdale	717	752	..	35
Loddon River .. .. .	..	174	..	174
North-West Lakes	514	277	237	..
Irrigation Districts	255,298	142,691	112,607	..
Waterworks Districts	124,029	100,346	23,683	..
Urban Districts and Divisions	76,890	26,038	50,852	..
Flood Protection Districts	6,633	1,391	5,242	..
Other Districts not yet classified	10,808	8,453	2,355	..
Licences, Diversions, Miscellaneous				
	525,340	298,091	229,982	2,733
<i>Not Revenue Producing—</i>				
River Gauging, Surveys and Reports, New Pro- jects .. .. .	..	2,953	..	2,953
Waterworks Trusts .. .. .	..	1,751	..	1,751
Loan and Unemployment Relief Works .. .. .	..	5,784	..	5,784
Totals	525,340	308,579	229,982	13,221
Amount available to meet Depreciation			£500	
Amount available to meet Interest, as per page 49 of Report			£216,261	

COLIBAN SYSTEM.

STATEMENT of Moneys received and disbursed during the year ended 30th June, 1936; and of Interest charged at the rates of 4 and $4\frac{1}{2}$ per cent. on Capital Debts.

District.	Capital Debit at 30th June, 1936.	Receipts.	Disbursements and Interest Charged.			Excess.	
			Disbursements.	Interest.	Total.	Receipts over Disbursements and Interest.	Disbursements over Interest and Receipts.
	£	£	£	£	£	£	£
Coliban	1,635,971	46,899	13,421	65,672	79,093	..	32,194
Axe Creek	1,750	470	259	70	329	141	..
Harcourt	11,040	2,126	920	442	1,362	764	..
Marong	2,100	161	50	84	134	27	..
Totals	1,650,861	49,656	14,650	66,268	80,918	932	32,194

FLOOD PROTECTION DISTRICTS.

STATEMENT of Moneys received and disbursed from 1st July, 1920, to 30th June, 1936; and of Interest charged at the rates of 4 and 4½ per cent. on Capital Debts, and also of Depreciation and Redemption charged as at 30th June, 1936.

RECEIPTS.

District.	1st July, 1920, to 30th June, 1935.	1935-36.			Grand Total at 30th June, 1936.
		Charge.	Interest and Miscellaneous.	Total.	
	£	£	£	£	£
1. Cardinia	20,130	1,084	125	1,209	21,339
2. Echuca	1,661	82	1	83	1,744
3. Kanyapella	2,531	357	25	382	2,913
4. Loch Garry	8,488	1,080	35	1,115	9,603
5. Lower Kooweerup	46,481	3,685	159	3,844	50,325
Totals	79,291	6,288	345	6,633	85,924

DISBURSEMENTS, AND INTEREST, DEPRECIATION, AND REDEMPTION CHARGED.

District.	DISBURSEMENTS.					INTEREST CHARGED.			(A) DEPRECIATION. (B) REDEMPTION.	Grand Total at 30th June, 1936.
	1st July, 1920, to 30th June, 1935.	1935-36.			Total at 30th June, 1936.	1st July, 1920, to 30th June, 1935.	1st July, 1935, to 30th June, 1936.	Total at 30th June, 1936.		
		Repairs and Maintenance.	Management.	Total.						
	£	£	£	£	£	£	£	£		£
1. Cardinia	4,970	312	121	433	5,403	21,928	1,800	23,728	..	29,131
2. Echuca	1,000	9	6	15	1,015	667	47	714	..	1,729
3. Kanyapella	1,041	25	30	55	1,096	1,484	160	1,644	..	2,740
4. Loch Garry	1,716	67	36	103	1,819	4,732	446	5,178	(B) 2,200	9,197
5. Lower Kooweerup ..	8,218	564	221	785	9,003	48,968	4,000	52,968	..	61,971
Totals	16,945	977	414	1,391	18,336	77,779	6,453	84,232	(B) 2,200	104,768

DISTRICTS HELD IN TRUST BY THE COMMISSION.

STATEMENT OF RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDED 31st DECEMBER, 1935.

RECEIPTS.

Name of Trust.	Bank Balance, at 31st December, 1934.	1935.				Grand Total for Year 1935.
		Rates.	Water Sales.	Interest and Miscellaneous.	Total.	
	£	£	£	£	£	£
Carrum	Dr. 978	1,481	..	626	2,107	1,129
Loddon United	Dr. 1,034	1,928	10	49	1,987	953
Loddon United (Mitiamo, Urban)	Dr. 95	176	200	57	433	338
Totals	Dr. 2,107	3,585	210	732	4,527	2,420

DISBURSEMENTS.

Name of Trust.	Capital Debt 31st December, 1935.	1935.					Grand Total for Year 1935.	Bank Balance carried forward 1st January, 1936.
		Maintenance and Water Distribution.	Management.	Total.	Interest.	(A) Depreciation (B) Redemption.		
	£	£	£	£	£	£	£	£
Carrum	25,091	543	173	716	1,087	(B) 309	2,112	Dr. 983
Loddon United	3,772	900	296	1,196	172	(B) 389	1,757	Dr. 804
Loddon United (Mitiamo, Urban)	4,883	123	22	145	209	(A) 28 (B) 23	405	Dr. 68
Totals	31,746	1,566	491	2,057	1,468	(A) 28 (B) 721	4,274	Dr. 1,855

IRRIGATION AND WATER SUPPLY DISTRICTS.

STATEMENT of Moneys received and disbursed from 1st May, 1906, to 30th June, 1936; and of Interest charged at the rates of 4 and 4½ per cent. on Capital Debts; and also of Depreciation and Redemption charged as at 30th June, 1936. (Free Headworks excluded.)

RECEIPTS.

District.	1st May, 1906, to 30th June, 1935.	1935-36.					Grand Total at 30th June, 1936.
		Rates.	Compulsory Irrigation Charge.	Water Sales.	Interest and Miscel- laneous.	Total.	
	£	£	£	£	£	£	£
1. Bacchus Marsh	116,808	683	3,764	1,207	39	5,693	122,501
2. Boort	89,101	1,572	..	2,845	110	4,527	93,628
3. Calivil	16,398	592	..	2,629	98	3,319	19,717
4. Campaspe	21,874	538	..	40	11	589	22,463
5. Cohuna	359,803	2,698	10,219	1,566	551	15,034	374,837
6. Deakin	120,369	2,881	..	924	122	3,927	124,296
7. Dingee	35,964	137	1,616	120	212	2,085	38,049
8. Echuca North	24,282	332	1,874	225	191	2,622	26,904
9. Fish Point	6,627	24	574	39	29	666	7,293
10. Katandra	7,703	315	..	1,889	45	2,249	9,952
11. Kerang	148,568	1,590	..	4,478	193	6,261	154,829
12. Koondrook	205,189	1,525	5,744	480	370	8,119	213,308
13. Leitchville	22,023	693	1,559	509	96	2,857	24,880
14. Maffra-Sale	71,795	2,113	8,918	507	436	11,974	83,769
15. Merbein	449,423	1,418	21,726	529	1,027	24,700	474,123
16. Mystic Park	12,372	117	937	134	46	1,234	13,606
17. North Shepparton	21,136	1,762	..	2,145	79	3,986	25,122
18. Nyah	136,294	331	6,055	257	562	7,205	143,499
19. Red Cliffs	380,976	1,161	40,964	405	1,907	44,437	425,413
20. Rochester	335,500	3,143	13,740	2,614	1,175	20,672	356,172
21. Rodney	637,169	6,208	18,146	2,989	758	28,101	665,270
22. Shepparton	153,850	1,474	5,548	419	301	7,742	161,592
23. South Shepparton	22,410	889	2,140	118	111	3,258	25,668
24. Stanhope	71,080	727	2,859	457	336	4,379	75,459
25. Swan Hill	173,278	1,013	5,904	2,374	345	9,636	182,914
26. Third Lake	9,246	148	629	59	49	885	10,131
27. Tongala	144,803	1,198	4,619	738	476	7,031	151,834
28. Tragowel Plains	292,664	1,552	9,195	1,957	604	13,308	305,972
29. Tresco	25,655	85	..	1,127	1	1,213	26,868
30. Werribee	112,526	837	4,943	1,509	300	7,589	120,115
Totals	4,224,886	37,756	171,673	35,289	10,580	255,298	4,480,184

DISBURSEMENTS, AND INTEREST, DEPRECIATION, AND REDEMPTION CHARGED.

District.	1st May, 1906, to 30th June, 1935.	DISBURSEMENTS.				INTEREST CHARGED.				(A) DEPRECIATION. (B) REDEMPTION.	Grand Total at 30th June, 1936.
		1935-36.				1st May, 1906 to 30th June, 1935.	1st July, 1935, to 30th June, 1936.	Total at 30th June, 1936.			
		Repairs and Maintenance.	Distribution of Water.	Manage- ment.	Total.						
	£	£	£	£	£	£	£	£	£	£	£
1. Bacchus Marsh ..	26,777	644	956	300	1,900	28,677	104,519	6,078	110,597	..	139,274
2. Boort	42,608	794	1,281	473	2,548	45,156	47,162	4,008	51,170	(B)1,400	97,726
3. Calivil	7,123	426	773	126	1,325	8,448	26,335	5,160	31,495	..	39,943
4. Campaspe	13,034	39	252	50	341	13,375	12,538	493	13,031	..	26,406
5. Cohuna	194,424	3,677	2,617	842	7,136	201,560	171,323	11,012	182,335	(A)13,045	396,940
6. Deakin	44,707	243	890	208	1,341	46,048	82,215	3,308	85,523	..	131,571
7. Dingee	18,911	340	427	73	840	19,751	24,424	1,226	25,650	..	45,401
8. Echuca North ..	9,930	108	493	96	697	10,627	17,528	1,638	19,166	..	29,793
9. Fish Point	4,924	73	250	142	465	5,389	5,171	622	5,793	..	11,182
10. Katandra	4,255	975	601	155	1,731	5,986	25,907	5,484	31,391	..	37,377
11. Kerang	80,257	608	1,520	399	2,527	82,784	72,683	4,882	77,565	(B)2,700	163,499
										(A) 450	
12. Koondrook	113,665	1,071	2,180	425	3,676	117,341	143,231	8,708	151,939	(A)6,160	275,440
13. Leitchville	6,729	257	389	138	784	7,513	13,498	1,699	15,197	..	22,710
14. Maffra-Sale	29,008	5,712	2,877	634	9,273	28,281	47,570	7,900	55,470	..	93,751
15. Merbein	318,224	2,210	16,329	578	19,117	337,341	138,398	8,371	146,769	(A)20,353	504,463
16. Mystic Park	8,945	128	273	119	520	9,465	7,303	694	7,997	..	17,462
17. North Shepparton ..	6,920	912	1,357	256	2,525	9,445	44,347	8,683	53,030	..	62,475
18. Nyah	104,017	685	4,726	662	6,073	110,090	64,481	4,215	68,696	(A)5,272	184,058
19. Red Cliffs	226,406	3,012	22,682	1,099	26,793	253,199	162,708	18,425	181,133	(A)24,426	458,758
20. Rochester	143,243	4,840	5,775	1,024	11,639	154,882	246,207	16,305	262,512	..	417,394
21. Rodney	260,431	4,808	7,159	1,213	13,180	273,611	453,272	27,806	481,078	..	754,689
22. Shepparton	56,515	2,606	1,876	670	5,152	61,667	146,178	10,168	156,346	..	218,013
23. South Shepparton ..	4,534	447	337	134	918	5,452	20,872	2,750	23,622	..	29,074
24. Stanhope	34,695	899	1,729	242	2,870	37,565	57,931	5,189	63,120	..	100,685
25. Swan Hill	90,813	1,494	2,263	665	4,422	95,235	91,198	6,771	97,969	(A)4,768	197,972
26. Third Lake	2,927	41	209	49	299	3,226	9,701	1,007	10,708	..	13,934
27. Tongala	62,983	1,651	2,331	531	4,513	67,496	137,607	8,025	146,232	..	213,728
28. Tragowel Plains ..	114,956	2,566	2,998	602	6,166	121,122	219,348	14,206	233,554	..	354,676
29. Tresco	37,003	209	1,654	204	2,067	39,070	41,567	3,632	45,199	..	84,269
30. Werribee	19,496	410	1,011	432	1,853	21,349	104,544	9,294	113,838	..	135,187
Totals	2,088,460	41,885	88,215	12,591	142,691	2,231,151	2,739,766	208,359	2,948,125	78,574	5,257,850

WATERWORKS DISTRICTS.

STATEMENT of Moneys received and disbursed from 1st May, 1906, to 30th June, 1936; and of Interest charged at the rates of 4 and 4½ per cent. on Capital Debts; and also of Depreciation and Redemption charged, as at 30th June, 1936. (Free Headworks excluded.)

RECEIPTS.

District.	1st May, 1906, to 30th June, 1935.	1935-36.				Grand Total at 30th June, 1936.
		Rates.	Water Sales.	Interest and Miscel- laneous.	Total.	
	£	£	£	£	£	£
1. Bellarine Peninsula	11,291	4,500	587	24	5,111	16,402
2. Birchip		4,188	99	432	4,719	
3. Sea Lake		6,960	43	898	7,901	
4. Tyrrrell	567,426	4,968	182	1,486	6,636	600,485
5. Tyrrrell West		4,182		494	4,676	
6. Wycheproof		8,341	53	733	9,127	
7. Carwarp	13,811	634		198	832	14,643
8. Carwarp Central	1,206	20		82	102	1,308
9. Coreena	1,609	498		37	535	2,144
10. Dering	4,897	608		14	622	5,519
11. Eureka	2,013	176		87	263	2,276
12. Hindmarsh	8,120	1,246		106	1,352	9,472
13. Karkarooc	234,201	11,484		209	11,693	245,994
14. Kerang North-West Lakes	3,599	152	4	5	161	3,760
15. Long Lake	184,361	8,222		357	8,579	192,940
16. Millewa	14,211	2,187	435	774	3,396	17,607
17. Millewa Central	7,925	1,104	74	285	1,463	9,388
18. Mornington Peninsula	52,190	3,000		64	3,064	55,254
19. Narre Warren	2,347	90	208	31	329	2,676
20. Tyntynder	103,094	4,404		1,036	5,440	108,534
21. Upper Western Wimmera	87,711	4,119		170	4,289	92,000
22. Upper Wimmera United	144,324	7,027		334	7,361	151,685
23. Walpeup Central	3,396	868	30	156	1,054	4,450
24. Walpeup West	30,860	1,106	25	223	1,354	32,214
25. Werribee	10,667	545	29	23	597	11,264
26. Western Wimmera	307,207	11,757	3,283	487	15,527	322,734
27. Wimmera United	345,087	15,945	924	733	17,602	362,689
28. Yelta	5,942	215	5	24	244	6,186
Totals	2,147,595	108,546	5,981	9,502	124,029	2,271,624

DISBURSEMENTS, AND INTEREST, DEPRECIATION, AND REDEMPTION CHARGED.

District.	1st May, 1906, to 30th June, 1935.	DISBURSEMENTS.				INTEREST CHARGED.				(A) DEPRECIATION. (B) REDEMPTION.	Grand Total at 30th June, 1936.
		Repairs and Maintenance.	1935-36.			Total at 30th June, 1936.	1st May, 1906, to 30th June, 1935.	1st July, 1935, to 30th June, 1936.	Total at 30th June, 1936.		
			Distribution of Water.	Management.	Total.						
	£	£	£	£	£	£	£	£	£	£	£
1. Bellarine Peninsula	1,046	969	524	294	1,787	2,833	12,663	6,371	19,034	..	21,867
2. Birchip	324,310	2,293	582	318	3,193	352,226	412,649	5,252	457,530	..	809,756
3. Sea Lake		3,283	833	334	4,450			7,432			
4. Tyrrrell		4,632	1,049	363	6,044			9,425			
5. Tyrrrell West		7,152	1,613	358	9,123			13,927			
6. Wycheproof		3,731	944	431	5,106			8,845			
7. Carwarp	35,531	2,230	2,595	81	4,906	40,437	18,115	1,646	19,761	(A) 586	60,784
8. Carwarp Central	1,579	123	274	27	424	2,003	1,074	77	1,151	(A) 25	3,179
9. Coreena	8,470	1,280	995	73	2,348	10,818	12,153	1,836	13,989	..	24,807
10. Dering	2,667	507	123	31	661	3,328	4,062	524	4,586	..	7,914
11. Eureka	3,337	26	185	22	233	3,570	1,691	301	1,992	..	5,562
12. Hindmarsh	2,524	400	68	33	501	3,025	5,718	791	6,509	(A) 700	10,234
13. Karkarooc	97,951	5,504	1,632	411	7,547	105,498	170,533	12,409	182,942	..	288,440
14. Kerang N.W. Lakes	2,354	68	27	25	120	2,474	1,727	82	1,809	..	4,283
15. Long Lake	109,654	2,262	1,485	225	3,972	113,626	92,222	6,306	98,528	(A) 8,305	220,450
16. Millewa	53,938	4,910	7,169	361	12,440	66,378	21,560	5,512	27,072	..	93,450
17. Millewa Central	17,714	851	6,620	148	7,619	25,333	16,000	4,000	20,000	..	45,333
18. Mornington Peninsula	8,106	379	23	57	459	8,565	45,430	1,480	46,910	..	55,475
19. Narre Warren	321	128	8	11	147	468	3,191	499	3,690	..	4,158
20. Tyntynder	79,583	5,642	1,234	242	7,118	86,701	107,930	14,997	122,927	..	209,628
21. Upper Western Wimmera	32,785	1,367	607	119	2,093	34,878	50,045	3,192	53,237	(A) 606	90,221
22. Upper Wimmera United	44,016	1,688	626	229	2,543	46,559	98,065	4,479	102,544	(B) 1,500	151,493
23. Walpeup Central	2,697	677	540	60	1,277	3,974	4,759	1,713	6,472	(B) 2,390	10,446
24. Walpeup West	22,139	839	..	86	925	23,064	18,036	1,462	19,498	(A) 1,200	43,762
25. Werribee	3,225	1	128	48	177	3,402	9,563	614	10,177	..	13,579
26. Western Wimmera	131,766	5,478	2,430	475	8,383	140,149	168,980	12,912	181,892	(A) 2,422	329,863
27. Wimmera United	107,943	3,921	1,522	533	5,976	113,919	222,904	10,358	233,262	(B) 5,400	352,491
28. Yelta	5,479	368	346	60	774	6,253	3,282	247	3,259	(B) 5,310	9,782
Totals	1,099,135	60,709	34,182	5,455	100,346	1,199,481	1,502,352	136,689	1,639,041	28,444	2,866,966

URBAN DISTRICTS

STATEMENT of Moneys received and disbursed from 1st May, 1906, to 30th June, and also of Depreciation and Redemption charged.

RECEIPTS.

District or Division.	1st May, 1906, to 30th June, 1935.	1935-36.				Grand Total at 30th June, 1936.
		Rates.	Water Sales.	Interest and Miscel- laneous.	Total.	
	£	£	£	£	£	£
1. Anglesea	65	432	..	15	447	512
2. Antwerp	421	76	16	13	105	526
3. Bacchus Marsh	35,400	1,185	523	5	1,713	37,113
4. Barwon Heads and Ocean Grove ..	3,459	1,498	100	40	1,638	5,097
5. Berriwillock	4,639	396	27	26	449	5,088
6. Berwick	7,182	637	149	46	832	8,014
7. Beulah	11,793	446	163	37	586	12,379
8. Birchip	24,295	582	359	94	1,035	25,330
9. Bittern	1,589	97	49	1	147	1,736
10. Brim	3,240	255	39	21	315	3,555
11. Bunyip	1,556	316	16	12	344	1,900
12. Carrum	80,831	6,068	467	478	7,013	87,844
13. Carwarp	202	40	..	..	40	332
14. Chillingollah	1,247	64	49	28	141	1,388
15. Chinkapook	1,450	178	10	4	192	1,642
16. Cohuna	16,367	882	71	63	1,016	17,383
17. Corop	740	26	..	1	27	767
18. Cranbourne	7,284	331	70	15	416	7,700
19. Crib Point	2,479	600	33	18	651	3,130
20. Culgoa	5,070	289	131	26	446	5,516
21. Dandenong	63,606	4,300	474	360	5,134	68,740
22. Dimboola	43,800	1,305	459	141	1,905	45,705
23. Dingee	881	115	..	5	120	1,001
24. Doon	193	14	20	..	34	227
25. Drysdale	310	290	52	16	358	668
26. Frankston	51,909	4,098	949	125	5,172	57,081
27. Garfield	1,290	329	5	25	359	1,649
28. Hastings	2,788	359	24	12	395	3,183
29. Heyfield	2,204	479	..	4	483	2,687
30. Hicksborough	419	109	..	4	113	532
31. Hopetoun	15,421	777	165	72	1,014	16,435
32. Jeparit	17,435	826	130	36	992	18,427
33. Jung Jung	2,544	168	22	6	196	2,740
34. Koondrook	8,977	395	8	12	415	9,392
35. Lake Boga	7,872	292	24	23	339	8,211
36. Lalbert	3,650	280	75	5	360	4,010
37. Lascelles	3,224	237	27	31	295	3,519
38. Leitchville	3,713	343	6	25	374	4,087
39. Lockington	2,924	355	6	26	387	3,311
40. Longwarry	539	270	287	19	576	1,115
41. Manangatang	5,847	469	97	27	593	6,440
42. Marnoo	3,330	305	85	2	392	3,722
43. Merbein	17,719	1,312	130	111	1,553	19,272
44. Meringur	990	122	15	9	146	1,136
45. Minyip	18,033	969	107	81	1,157	19,190
46. Mornington	36,215	2,879	486	175	3,540	39,755
47. Mount Martha	4,575	694	18	28	740	5,315
48. Murrabit	361	53	..	1	54	415
49. Nandaly	1,295	135	10	10	155	1,450
50. Natimuk	12,656	265	167	69	501	13,157
51. Newstead	846	502	29	18	549	1,395
52. North Wonthaggi	3,158	514	..	33	547	3,705
53. Nullawil	1,963	250	15	28	293	2,256
54. Nyah	1,558	83	9	..	92	1,650
55. Nyah West	7,655	603	96	12	711	8,366
56. Ouyen	27,556	1,398	609	78	2,085	29,641
57. Pakenham	7,540	599	472	35	1,106	8,646
58. Patchewollock	1,268	137	16	6	159	1,427
59. Piangil	5,241	287	142	6	435	5,676
60. Portarlington	514	475	22	25	522	1,036
61. Pyramid Hill	5,425	592	62	21	675	6,100
62. Quambatook	842	517	9	38	564	1,406
63. Queenscliff and Point Lonsdale ..	8,472	2,964	396	61	3,421	11,893
64. Rainbow	22,351	879	328	75	1,282	23,633
65. Red Cliffs	16,466	1,699	246	118	2,063	18,529
66. Rupanyup	15,834	795	70	55	920	16,754
67. Sea Lake	18,909	775	227	104	1,106	20,015
68. Somerville	3,320	237	79	3	319	3,639
69. South Frankston	16,637	1,809	165	42	2,016	18,653
70. Speed	1,360	143	10	6	159	1,519
71. Spring Vale	22,603	2,446	548	133	3,127	25,730
72. Stanhope	2,052	235	..	11	246	2,298
73. Tempy	1,157	179	16	9	204	1,361
74. Torquay	364	758	16	40	814	1,178
75. Ultima	9,022	369	35	34	438	9,460
76. Waitchie	732	95	4	11	110	842
77. Walpeup .. .. .	..	152	..	5	157	157
78. Watchem	6,734	321	20	48	389	7,123
79. Werrimull	2,578	254	35	16	305	2,883
80. Wonthaggi	95,902	2,610	2,025	69	4,704	100,606
81. Woomelang	15,348	361	134	46	541	15,889
82. Woorinen	1,111	134	4	2	140	1,251
83. Wycheproof	18,784	772	213	75	1,060	19,844
84. Yaapeet	784	170	39	17	226	1,010
Totals	888,205	61,056	12,151	3,683	76,890	965,095

AND DIVISIONS.

1936; and of Interest charged at the rates of 4 and $4\frac{1}{2}$ per cent. on Capital Debits; as at 30th June 1936. (Free Headworks excluded).

DISBURSEMENTS, AND INTEREST, DEPRECIATION, AND REDEMPTION CHARGED.

District or Division.	1st May, 1906, to 30th June, 1935.	DISBURSEMENTS.					INTEREST CHARGED.				DEPRECIATION.		Grand Total at 30th June, 1936.
		1935-36.				Total at 30th June, 1936.	1st May, 1906 to 30th June, 1935.	1st July, 1935, to 30th June, 1936.	Total at 30th June, 1936.	(a) DEPRECIATION.	(b) REDEMPTION.		
		Repairs and Maintenance.	Distribution of Water.	Management.	Total.								
	£	£	£	£	£	£	£	£	£	£	£	£	
1. Anglesea ..	75	94	51	94	239	314	620	634	1,254	..	..	1,568
2. Antwerp ..	143	5	12	9	26	169	229	43	272	(a)	18	459	
3. Bacchus Marsh ..	7,998	50	244	97	391	8,389	27,220	1,561	28,781	(a)	686	37,856	
4. Barwon Heads and Ocean Grove ..	553	187	101	25	313	866	2,927	1,228	4,155	..	..	5,021
5. Berriwillock ..	2,203	74	46	27	147	2,350	2,524	245	2,769	(a)	113	5,232	
6. Berwick ..	1,042	221	13	52	286	1,328	6,074	863	6,937	..	..	8,265
7. Beulah ..	5,194	11	220	35	266	5,460	6,429	483	6,912	(a)	158	12,530	
8. Birchip.. ..	10,593	293	331	60	684	11,277	12,689	880	13,569	(a, b)	1,195	26,041	
9. Bittern ..	215	28	2	11	41	256	1,489	110	1,599	..	..	1,855
10. Brim ..	764	..	18	30	48	812	2,111	208	2,319	(a)	224	3,355	
11. Bunyip.. ..	299	113	7	31	151	450	1,597	441	2,038	..	..	2,488
12. Carrum ..	13,604	2,172	131	463	2,766	16,370	70,740	8,486	79,226	..	..	95,596
13. Carwarp ..	150	..	5	10	15	165	177	42	219	(a)	174	558	
14. Chillingollah ..	527	4	26	18	48	575	1,294	139	1,433	(a)	185	2,193	
15. Chinkapook ..	346	20	36	19	75	421	901	148	1,049	(a)	318	1,788	
16. Cohuna ..	4,474	84	141	70	295	4,769	10,912	717	11,629	(a, b)	894	17,292	
17. Corop ..	366	2	5	6	13	379	377	19	396	(a)	60	835	
18. Cranbourne ..	1,103	90	6	55	151	1,254	6,744	352	7,096	..	..	8,350
19. Crib Point ..	460	114	7	26	147	607	1,779	446	2,225	(a)	290	3,122	
20. Culgoa ..	1,866	131	47	27	205	2,071	3,161	224	3,385	(a)	102	5,558	
21. Dandenong ..	10,620	1,301	79	425	1,805	12,425	53,905	5,087	58,992	(a)	500	71,917	
22. Dimboola ..	24,192	306	218	128	652	24,844	16,242	1,241	17,483	(a, b)	3,026	45,353	
23. Dingee ..	365	15	20	7	42	407	588	63	651	(a)	126	1,184	
24. Doon ..	113	..	12	10	22	135	168	50	218	(a)	15	368	
25. Drysdale ..	69	60	32	21	113	182	393	394	787	..	..	969
26. Frankston ..	8,067	1,069	65	217	1,351	9,418	44,073	4,191	48,264	..	..	57,682
27. Garfield ..	274	88	5	27	120	394	1,383	342	1,725	..	..	2,119
28. Hastings ..	502	130	8	16	154	656	2,293	506	2,799	..	..	3,455
29. Heyfield ..	868	83	131	36	250	1,118	1,360	346	1,706	(a)	70	2,894	
30. Hicksborough ..	204	11	6	7	24	228	249	50	299	(a)	50	577	
31. Hopetoun ..	8,538	12	324	35	371	8,909	7,640	678	8,318	(a, b)	252	17,479	
32. Jeparit ..	3,232	84	28	50	162	3,394	12,934	818	13,752	(a, b)	908	18,054	
33. Jung Jung ..	1,488	106	93	17	216	1,704	1,180	198	1,378	(a)	114	3,196	
34. Koondrook ..	4,822	24	235	37	296	5,118	3,982	218	4,200	(a)	345	9,663	
35. Lake Boga ..	4,029	46	215	47	308	4,337	4,001	220	4,221	(a, b)	355	8,913	
36. Lalbert.. ..	728	13	12	43	68	796	2,573	237	2,810	(a)	657	4,263	
37. Lascelles ..	1,425	25	12	27	64	1,489	1,908	218	2,126	(a)	194	3,809	
38. Leitchville ..	1,893	41	107	21	169	2,062	1,767	138	1,905	(a)	252	4,219	
39. Lockington ..	594	6	38	20	73	667	2,044	132	2,176	(a)	405	3,248	
40. Longwarry ..	74	98	6	21	125	199	440	384	824	..	..	1,023
41. Manangatang ..	1,254	77	12	51	140	1,394	3,934	311	4,245	(a)	650	6,289	
42. Marnoo ..	504	..	12	15	27	531	2,306	258	2,564	(a)	567	3,662	
43. Merbein ..	8,350	133	633	80	846	9,196	9,203	1,101	10,304	(a)	650	20,150	
44. Meringur ..	336	20	12	21	53	389	635	103	738	(a)	150	1,277	
45. Minyip ..	5,350	50	242	71	363	5,713	11,530	677	12,207	(a, b)	1,085	19,005	
46. Mornington ..	5,657	597	36	147	780	6,437	30,654	2,334	32,988	(a)	500	39,925	
47. Mount Martha ..	745	124	8	35	167	912	3,800	486	4,286	..	..	5,198
48. Murrabit ..	203	5	16	12	33	236	225	46	271	..	..	507
49. Nandaly ..	418	13	14	16	43	461	747	111	858	(a)	216	1,535	
50. Natimuk ..	3,149	12	36	52	100	3,249	8,818	412	9,230	(a, b)	799	13,278	
51. Newstead ..	366	96	86	32	214	580	490	329	819	..	..	1,399
52. North Wonthaggi ..	1,153	85	45	34	164	1,317	2,142	287	2,429	(a)	320	4,066	
53. Nullawil ..	515	54	18	18	90	605	1,476	192	1,668	(a)	97	2,370	
54. Nyah ..	697	2	34	18	54	751	777	59	836	(a)	84	1,671	
55. Nyah West ..	1,955	84	141	55	280	2,235	5,130	427	5,557	(a)	780	8,572	
56. Ouyen ..	10,047	80	429	172	681	10,728	17,456	1,166	18,622	(a)	793	30,143	
57. Pakenaam ..	851	189	12	48	249	1,100	6,104	738	6,842	(a)	794	8,736	
58. Patchewollock ..	283	12	12	20	44	327	899	204	1,103	(a)	276	1,706	
59. Piangil ..	1,565	50	51	44	145	1,710	2,919	367	3,286	(a)	680	5,676	
60. Portarlinton ..	168	125	67	29	221	329	818	820	1,638	..	..	1,967
61. Pyramid Hill ..	2,335	17	144	48	209	2,544	2,958	348	3,306	(a)	540	6,390	
62. Quambatook ..	195	156	174	69	399	594	476	291	767	(a)	90	1,451	
63. Queenscliff and Point Lonsdale ..	986	391	211	200	802	1,788	7,368	2,573	9,941	..	..	11,729
64. Rainbow ..	3,831	9	57	51	117	3,948	16,396	696	17,092	(a, b)	1,881	22,921	
65. Red Cliffs ..	6,960	289	414	107	810	7,770	7,913	978	8,891	(a)	820	17,481	
66. Rupanyup ..	4,851	76	273	66	415	5,266	9,772	666	10,438	(a, b)	1,029	16,733	
67. Sea Lake ..	8,703	76	270	67	413	9,116	8,464	527	8,991	(a)	1,424	19,531	
68. Somerville ..	520	51	3	11	65	585	2,979	198	3,177	..	..	3,762
69. South Frankston ..	2,619	253	15	67	335	2,954	13,545	994	14,539	(a)	500	17,993	
70. Speed ..	328	40	18	19	77	405	780	147	927	(a)	360	1,692	
71. Spring Vale ..	3,531	813	49	221	1,083	4,614	18,990	3,196	22,186	..	..	26,800
72. Stanhope ..	527	6	49	21	76	603	1,316	95	1,411	(a)	288	2,302	
73. Tempy ..	396	12	23	14	49	445	706	142	848	(a)	312	1,605	
74. Torquay ..	164	154	83	48	285	449	1,013	1,021	2,034	..	..	2,483
75. Ultima ..	2,945	24	21	37	82	3,027	5,892	391	6,283	(a)	275	9,585	
76. Waitechie ..	397	1	14	12	27	424	864	142	1,006	(a)	288	1,718	
77. Walpeup ..	..	..	12	21	33	33	..	125	125	..	..	158
78. Watchem ..	1,998	111	38	29	178	2,176	4,533	287	4,820	(a)	241	7,237	
79. Werrinull ..	806	80	36	22	138	944	1,742	235	1,977	(a)	365	3,286	
80. Wonthaggi ..	19,981	654	1,351	326	2,331	22,312	58,033	2,537	60,570	(a, b)	15,000	97,882	
81. Woomelang ..	5,039	35	71	47	153	5,192	10,318	529	10,847	(a, b)	713	16,752	
82. Woorinen ..	352	3	8	16	27	379	838	103	941	(a)	136	1,456	
83. Wycheproof ..	8,899	107	353	58	518	9,417	8,980	731	9,711	(a)	915	20,043	
84. Yaapest ..	226	..	18	12	30	256	565	130	695	(a)	260	1,211	
Totals ..	244,167	12,377	8,716	4,945	26,038	270,205	613,621	60,290	673,911	..	45,564	989,680	

CAPITAL EXPENDITURE.

STATEMENT of Moneys Expended from Water Supply Loans and Unemployment Relief Funds for the year ended 30th June, 1936.

Works.	Unemployment Relief Funds.	Water Supply Loans Application Acts 4256 and 4325 and Treasurer's Advance.	Total.
	£ s. d.	£ s. d.	£ s. d.
<i>Free Headworks.</i>			
1. Laanecoorie Weir .. .. .	..	1,025 9 8	1,025 9 8
<i>River Murray Waters Acts—Works.</i>			
2. Storages, Weirs, and Locks .. .. .	..	113,500 0 0	113,500 0 0
<i>Reservoirs and Storages.</i>			
3. Goulburn Storages—			
Eildon Reservoir .. .. .	..	25,219 8 6	25,219 8 6
Waranga Reservoir	3,069 12 6	..	3,069 12 6
4. Lysterfield Reservoir	3,764 16 9	75 5 10	3,840 2 7
5. Glenmaggie Reservoir .. .. .	..	1,757 15 5	1,757 15 5
6. Eppalock Reservoir .. .. .	..	330 18 0	330 18 0
7. Pykes Creek and Melton Reservoirs	1,600 17 10	1,939 9 9	3,540 7 7
<i>Waterworks Districts.</i>			
8. Bellarine Peninsula .. .. .	..	3,273 14 2	3,273 14 2
9. Birchip, Sea Lake, Tyrrell, and Wycheproof	15,708 17 2	5,869 12 5	21,578 9 7
10. Carwarp	172 16 3	..	172 16 3
11. Eureka	168 19 6	..	168 19 6
12. Karkarooc	3,301 0 5	1,500 14 10	4,801 15 3
13. Long Lake	1,335 18 6	621 18 7	1,957 17 1
14. Millewa and Millewa Central	4,477 0 1	0 17 6	4,477 17 7
15. Mornington Peninsula	4,127 18 11	8,492 18 6	12,620 17 5
16. Normanville (proposed) .. .. .	..	698 15 4	698 15 4
17. Tyntynder	3,768 17 1	442 1 2	4,210 18 3
18. Western Wimmera	1,803 11 7	2,268 3 5	4,071 15 0
19. Wimmera United	2,290 0 8	2,254 13 8	4,544 14 4
20. Wimmera Mallee, Main and Distributary Channels	1,277 7 0	991 17 2	2,269 4 2
<i>Towns.</i>			
21. Bacchus Marsh, Cohuna, Dingee, and Pyramid Hill	837 4 8	2,257 3 8	3,094 8 4
22. Berriwillock, Beulah, Birchip, Culgoa, and Dimboola .. .. .	..	1,023 7 2	1,023 7 2
23. Camperdown, Cobden, Terang, and Warrnambool	4,258 6 2	9,387 16 4	13,646 2 6
24. Coliban	55,583 10 8	4,710 16 9	60,294 7 5
25. Hopetoun, Jeparit, Jung, and Koondrook	2,713 19 1	2,817 6 9	5,531 5 10
26. Lake Boga, Manangatang, and Minyip	24 10 8	60 0 2	84 10 10
27. Merbein .. .. .	..	940 10 0	940 10 0
28. Newstead .. .. .	..	200 16 8	200 16 8
29. Ouyen, Patchewollock, Piangil, Quambatook .. .. .	..	85 13 11	85 13 11
30. Redcliffs .. .. .	..	2,463 11 3	2,463 11 3
31. Rainbow, Rupanyup, Sea Lake, and Ultima	421 5 10	232 9 9	653 15 7
32. Walpeup .. .. .	..	275 6 7	275 6 7
33. Woorinen and Wycheproof .. .. .	..	406 10 8	406 10 8
34. Wonthaggi .. .. .	..	2,957 11 5	2,957 11 5
<i>Irrigation and Water Supply Districts.</i>			
35. Bacchus Marsh and Werribee	1,321 3 10	2,007 10 11	3,328 14 9
36. Boort	1,303 9 4	121 10 4	1,424 19 8
37. Calivil .. .. .	..	181 18 2	181 18 2
38. Cohuna	8,741 9 5	878 19 9	9,620 9 2
39. Deakin and Dingee	3,363 2 2	18 16 5	3,381 18 7
40. First Mildura Trust (drainage works)	77,143 18 1	..	77,143 18 1
41. Katandra .. .. .	..	181 1 6	181 1 6
42. Kerang	28,152 19 3	4,891 10 11	33,044 10 2
43. Koondrook .. .. .	..	368 17 1	368 17 1
44. Leitchville .. .. .	..	261 3 2	261 3 2
45. Maffra-Sale	2,515 7 3	4,906 10 11	7,421 18 2
46. Merbein	30,216 8 6	3,586 2 2	33,802 10 8
47. Murray Valley District (proposed) .. .. .	..	41,349 14 2	41,349 14 2
48. Mystic Park, Third Lake, and Tresco	889 7 8	46 1 10	935 9 6
49. North Shepparton and South Shepparton .. .. .	..	1,376 4 11	1,376 4 11
50. Nyah	202 3 3	63 19 1	266 2 4
51. Redcliffs	61,788 8 0	4,793 9 3	66,581 17 3
52. Rochester	8,934 9 2	1,006 10 6	9,940 19 8
53. Rodney	15,193 8 3	3,886 8 2	19,079 16 5
54. Shepparton	11,135 18 9	823 2 4	11,959 1 1
55. Stanhope .. .. .	..	314 3 11	314 3 11
56. Swan Hill	5,927 12 4	855 3 5	6,782 15 9
57. Tongala	18,462 9 6	658 17 1	19,121 6 7
58. Tragowel Plains	2,685 14 5	2,985 18 9	5,671 13 2
59. Goulburn Main Channels .. .. .	..	907 5 3	907 5 3
<i>Flood Protection and Drainage Districts.</i>			
60. Carrum	5,547 7 3	..	5,547 7 3
61. Kooweerup, Cardinia, and Dandenong Creek	34,151 10 3	1,292 12 5	35,444 2 8
62. Other Districts and Works	603 7 11	..	603 7 11
<i>Miscellaneous.</i>			
63. Snagging Rivers	20,902 3 1	..	20,902 3 1
64. Investigations, Storages, and Works	1,028 0 3	..	1,028 0 3
Totals	450,916 9 3	275,846 7 5	726,762 16 8

Total expenditure from Unemployment Relief Funds as from 1st June, 1930, to 30th June, 1936, amounts to £1,496,000.

CONTRACTS.

STATEMENT OF CONTRACTS ENTERED INTO DURING THE YEAR ENDED 30TH JUNE, 1936.

No.	Name of Contractor.	Work or Supply.	Amount (Loan and Vote).	
			£	s. d.
2922	E. J. Burke	Catering for workmen (16s. per man per week), Yarrowonga Weir ..	..	..
2923	Martin Stoneware Pipe Ltd. ..	Salt glazed ware pipes, Red Cliffs (Drainage) ..	1,520	16 8
2924	R. Parker	Channel Construction, Murray Valley ..	1,576	12 6
2925	R. Parker	Channel Construction, Murray Valley ..	1,832	0 0
2926	J. H. Matheson	Channel Construction, Murray Valley ..	2,140	19 0
2927	J. H. Matheson	Channel Construction, Murray Valley ..	2,348	3 6
2928	J. B. Ellis	Channel Construction, Murray Valley ..	2,292	6 0
2929	R. J. Craig	Channel Construction, Murray Valley ..	2,193	2 4
2930	J. E. Campbell	Channel Construction, Murray Valley ..	2,336	9 6
2931	R. J. Craig	Channel Construction, Murray Valley ..	2,187	4 9
2932	C. Tucknott	Channel Construction, Murray Valley ..	2,191	16 10
2933	W. Delmenico, R. Delmenico, G. Kay, R. F. Telford	Channel Construction, Murray Valley ..	1,347	18 4
2934	G. Snell	Channel Construction, Murray Valley ..	1,562	6 6
2935	Australian Cement Ltd.	6,000 tons Cement (Portland), General ..	25,900	0 0
2936	W. F. Lake	Firewood, Millewa ..	127	1 8
2937	G. A. Foster	Firewood, Millewa ..	491	13 4
2938	Roela Ltd.	Concrete Pipes, First Mildura Irrigation Trust (Drainage) ..	3,249	4 2
2939	Roela Ltd.	Concrete Pipes, Red Cliffs (Drainage) ..	4,657	18 4
2940	L. J. Russell	Firewood, Millewa ..	775	0 0
2941	P. J. McPhee	Firewood, Millewa ..	516	13 4
2942	F. Chittleborough	Firewood, Millewa ..	604	3 4
2943	E. F. Moebus	Firewood, Nyah ..	125	0 0
2944	Hume Steel Ltd.	Mild Steel Cement Lined Pipes, Coliban District (Eaglehawk) ..	7,376	15 4
2945	Hume Pipe Co. (Australia) Ltd. ..	Concrete Pipes, Red Cliffs (Drainage) ..	1,133	6 8
2946	Martin Stoneware Pipe Ltd. ..	Salt glazed ware pipes, Red Cliffs (Drainage) ..	3,097	18 4
2947	Janetzki Bros.	Channel Construction, Murray Valley ..	1,662	17 6
2948	F. A. Relf	Channel Construction, Murray Valley ..	1,672	6 8
2949	R. J. Craig	Channel Construction, Murray Valley ..	1,672	5 4
2950	G. Peters	Channel Construction, Murray Valley ..	1,540	3 9
2951	Jno. Campbell	Channel Construction, Murray Valley ..	1,822	1 4
2952	S. H. McLean	Channel Construction, Murray Valley ..	1,777	16 0
2953	G. A. Dornom and C. J. Price ..	Construction Road Bridge, Murray Valley ..	1,160	8 11
2954	Hume Pipe Co. (Australia) Ltd. ..	Concrete Pipes, First Mildura Irrigation Trust (Drainage) ..	6,648	1 8
2955	Corawells Pottery	Salt glazed ware pipes, First Mildura Irrigation Trust (Drainage) ..	2,250	0 0
2956	Martin Stoneware Pipe Ltd. ..	Salt glazed ware pipes, First Mildura Irrigation Trust (Drainage) ..	3,013	2 6
2957	W. F. Irvine	Channel Construction, Murray Valley ..	1,344	6 4
2958	W. F. Irvine	Channel Construction, Murray Valley ..	1,268	15 6
2959	Thomas Cowan and John Mulcahy ..	Channel Construction, Murray Valley ..	1,272	9 0
2960	F. Murphy	Channel Construction, Murray Valley ..	1,160	2 9
2961	Northausen Bros.	Channel Construction, Murray Valley ..	963	19 0
2962	C. J. Silvester	Channel Construction, Murray Valley ..	1,253	9 2
2963	C. J. Silvester	Channel Construction, Murray Valley ..	1,133	12 3
2964	Alfred Harman	One three-quarter cubic yard Excavator, Districts generally ..	4,005	0 0
2965	Alfred Harman	Four half cubic yard Excavators, Districts generally ..	9,820	0 0
2966	W. J. Parmley and E. Bennett ..	Channel Construction, Murray Valley ..	1,106	6 3
2967	Delmenico Bros.	Channel Construction, Murray Valley ..	941	8 0
2968	W. Watt and A. Griffin	Channel Construction, Murray Valley ..	1,087	4 10
2969	Australian Wood Pipe Co. Ltd. ..	Turpentine wood stave pipes, Wonthaggi ..	1,155	19 11
2970	Australian Iron and Steel Co. Ltd. ..	Steel Sheet Piling, Yarrowonga Weir (River Murray Works) ..	3,911	5 0
2971	Australian Iron and Steel Co. Ltd. ..	Steel Sheet Piling, Yarrowonga Weir (River Murray Works) ..	615	11 3
2972	Hume Steel Ltd.	Mild Steel Concrete Lined Pipes, Western District Towns ..	969	3 2
2973	F. W. Bell	Beaching Stone, Yarrowonga Weir ..	1,200	16 8
2974	Graham Campbell Ferrum Co. Pty. Ltd. ..	Flanged Cast Iron Pipe, Melton Reservoir ..	1,265	0 0
2975	R. Delmenico	Channel Construction, Murray Valley ..	1,076	19 0
2976	W. J. Fairman and C. Tucknott ..	Channel Construction, Murray Valley ..	1,159	1 6
2977	Thos. C. O'Brien	Channel Construction, Murray Valley ..	1,123	5 0
2978	S. G. Muntz	Channel Construction, Murray Valley ..	1,302	17 0
2979	J. Kennedy	Channel Construction, Murray Valley ..	861	8 11
2980	M. Connelly	Channel Construction, Murray Valley ..	752	14 8
2981	F. Murphy	Channel Construction, Murray Valley ..	723	3 1
2982	Hume Steel Ltd.	Mild Steel Pipes, Mornington Peninsula (Springvale Urban) ..	4,867	16 3
2983	J. H. Matheson	Channel Construction, Murray Valley ..	896	3 8
2984	J. H. Matheson	Channel Construction, Murray Valley ..	783	9 4
2985	S. L. Hinchliffe	Channel Construction, Murray Valley ..	856	1 6
2986	J. C. Pell	Channel Construction, Murray Valley ..	730	4 2
2987	Roela Ltd.	Reinforced Concrete Drainage Pipes, Red Cliffs (Drainage) ..	1,659	7 6
2988	Cowley's Eureka Ironworks Pty. Ltd. ..	Mild Steel Pipes, Western District Towns ..	4,429	0 8
	Small Contracts at piece-work rates— Loan Funds .. ..	.. ..	1,570	0 0
	Unemployment Relief Funds .. ..	.. ..	9,356	0 0
	Total .. ..	.. ..	161,425	15 5

DIRECT LABOUR 1935-36.

The construction of the larger works is still being mainly carried out by "Direct Labour," and the Statement hereunder shows the Fund from which this expenditure has been met. The principal payments during the year were:—

Works.			Loan Funds.		Unemployment Relief Funds.	
			£		£	
River Murray Storages (Hume Reservoir and Yarrowonga Weir)	..	..	46,086	..	..	..
Eildon Weir .. ..	..	..	20,068	..	..	..
Wimmera-Mallee System .. ..	..	..	11,516	..	26,276	..
Murray Valley District (Yarrowonga Main Channel)	..	..	6,722	..	..	..
Western District Towns (Camperdown, Terang, Warnambool, Cobden)	..	..	6,072	..	2,819	..
Deakin, Rochester, Rodney, Shepparton, Stanhope, and Tongala Districts	..	..	5,561	..	41,265	..
Mornington Peninsula District .. ..	..	..	4,905	..	5,631	..
Boort, Tragowel Plains, Nyah, and Swan Hill Districts	..	..	4,374	..	6,036	..
Merbein, Mildura, and Red Cliffs Districts	..	..	3,990	..	113,666	..
Maffra-Sale District (Glenmaggie Reservoir)	..	..	3,977	..	1,858	..
Bacchus Marsh and Werribee Districts	..	..	3,675	..	2,452	..
Cohuna, Kerang, Kerang Lakes, Koondrook, Mystic Park, and Tresco Districts	..	..	3,318	..	31,912	..
Coliban System .. ..	..	..	2,829	..	34,288	..
Bellarine Peninsula District .. ..	..	..	1,903	..	..	..
Goulburn Main Channels .. ..	..	..	616	..	2,304	..
Kooweerup, Cardinia, and other Flood Protection Districts	..	..	466	..	17,255	..
Other Districts .. ..	..	..	293	..	17,715	..
			126,371	..	303,507	..
Grand Total .. ..	..	..	£429,878			

ESTIMATES.

ESTIMATED DISBURSEMENTS.

1936-1937.

A.

Revenue Producing Works—

Coliban District	£12,188
Irrigation and Water Supply Districts	138,713
Waterworks Districts	114,450
Drainage and Flood Protection Districts	938
Diversions from Streams	377
General Expenditure and Salaries (proportion) over £250 to be apportioned to above Districts	20,500
	<hr/> £287,166

B.

Non-Revenue Producing Works—

General Services—

River Gaugings, Surveys, New Projects, General Expenditure and Salaries (proportion) over £250 ..	£6,100
Loan Works and Unemployment Relief Works, Services on Account defrayed from Votes ..	5,000
Waterworks Trusts Administration	1,900
	<hr/> £13,000

C.

Non-Revenue Producing Works—

Free Headworks—

Broken River	£90
Goulburn-Waranga	2,525
Kow Swamp	625
Lake Lonsdale and Lower Wimmera	525
Loddon River	125
North-West Lakes	148
	<hr/> £4,038

£304,204

ESTIMATED RECEIPTS.

1936-1937.

Coliban District	£45,000
Irrigation and Water Supply Districts	244,000
Waterworks Districts	196,000
Drainage and Flood Protection Districts	6,000
Miscellaneous	14,000
	<hr/> £505,000

Estimated amount available from Revenue Producing Works to meet Interest

£217,834

Less expenditure as per "B" and "C" above on Non-Revenue Producing Works

17,038

£200,796

To which add Estimated Revenues from other Authorities—

Waterworks Trusts £57,300

Local Bodies 23,200

£80,500

Total Estimated amount available from Revenues of all Authorities to meet Interest

£281,296

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 HEADWORKS.

DESCRIPTION OF WORKS.	Capital Debit at 30th June, 1936. 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 (but exclusive of the work of its enlargement)	739,522
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, Racecourse Lake, Cullen's Lake, Kangaroo Lake, and Lake Tutchevop, and to the Little Murray River, with water storage works at these lakes	26,620
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 ..	187,944
5. Lake Lonsdale Reservoir :—Reservoir at Lake Lonsdale, on the Little Wimmera River, near Ledcourt	49,054
6. Loddon River Works :—Laanecoorie Weir, on the Loddon; Bridgewater Weir, on the Loddon; Kinypanial Weir, on the Loddon	168,828
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	8,663
Total	1,222,830

B.—MAIN SUPPLY WORKS.

IRRIGATION AND WATER SUPPLY DISTRICTS, WATERWORKS DISTRICTS, AND
FLOOD PROTECTION DISTRICTS.

Costs Apportioned and to be Apportioned to Districts benefited.

Name of Work.	Capital Debit at 30th June, 1936.	Tentative Debits to Districts, 1935-36.	
	£	Rodney £120,000 Tragowel Plains 100,000 Rochester 74,000 Tongala 58,000 Shepparton 57,000 Katandra 30,000 Deakin 24,000 North Shepparton 21,000 Boort 20,000 Calivil 18,000 Echuca North 17,000 Dingee 15,000 Stanhope 15,000 South Shepparton 9,000 £578,000	
Goulburn Main Channels (Free Headworks excluded)—			
1. East Goulburn Main	363,807		
2. Waranga Reservoir to Campaspe	390,777		
3. West of Campaspe	656,045		
4. Goulburn Main Channel Distributaries	10,636		
	1,421,265		
Less transferred to Wimmera-Mallee	100,000		
	1,321,265		1,321,265
Goulburn Storages—			
5. Eildon Reservoir	1,904,660		
6. Waranga Reservoir Enlargement	608,435		
	2,513,095		2,513,095
Bacchus Marsh and Werribee Schemes—			
7. Ballan Tunnel	21,678		
8. Pykes Creek Reservoir	142,189		
9. Melton Reservoir	87,886		
	251,753	Capital allotted £200,898	251,753
10. Bellarine Peninsula	472,256	Capital allotted £326,805	472,256
Maffra-Sale Scheme—			
11. Glenmaggie Reservoir	665,429		
12. Main Channels and Distributary Works	590,532		
	1,255,961	Capital allotted £206,142	1,255,961
Red Cliffs Scheme—			
13. Main and Distributary Channels	792,051	Capital allotted £486,299	792,051
Millewa District—			
14. Main and Distributary Channels	519,273	Capital allotted £246,173	519,273
Flood Protection Districts—			
15. Kooweerup and Cardinia	386,378		
16. Goulburn Levees and other Districts	58,487		
	444,865	Capital allotted £160,243	444,865
Carried forward			8,793,349

WORKS UNDER CONTROL OF COMMISSION—*continued.*

Capital Debit
at 30th June,
1936,
Exclusive
of Cost of Loan
Flotation.

Brought forward

£
8,793,349

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, 1936.
	£	£	£	£
1. Bacchus Marsh	118,167	8,906	528	108,733
2. Boort	116,460	35,259	1,809	79,392
3. Calivil	110,634	..	..	110,634
4. Campaspe	65,253	52,685	305	12,263
5. Cohuna	367,743	74,095	1,697	291,951
6. Deakin	95,919	34,748	2,144	59,027
7. Dingee	17,234	..	..	17,234
8. Dry Lake	1,704	686	299	719
9. Echuca North	23,895	..	..	23,895
10. Fish Point	15,531	..	..	15,531
11. Katandra	106,479	..	..	106,479
12. Kerang	160,806	35,338	2,446	123,022
13. Koondrook	264,789	39,153	1,752	223,884
14. Leitchville	45,388	..	..	45,388
15. Merbein	238,249	..	157	238,092
16. Mystic Park	17,329	..	..	17,329
17. North Shepparton	193,866	..	..	193,866
18. Nyah	111,371	..	30	111,341
19. Rochester	335,551	..	1,828	333,723
20. Rodney	732,012	149,949	9,055	573,008
21. Shepparton	196,470	..	1,241	195,229
22. South Shepparton	59,593	..	..	59,593
23. Stanhope	116,438	..	53	116,385
24. Swan Hill	189,199	19,799	400	169,000
25. Third Lake	25,143	..	..	25,143
26. Tongala	156,207	..	2,540	153,667
27. Tragowel Plains	384,868	124,534	638	259,696
28. Tresco	90,751	..	..	90,751
29. Werribee	125,949	..	10,242	115,707
	4,482,998	575,152	37,164	3,870,682

3,870,682

D.—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 Debit at 30th June, 1936.
	£	£	£	£
1. Birchip	152,108	..	312	151,796
2. Sea Lake	223,113	..	465	222,648
3. Tyrrell	241,001	..	502	240,499
4. Tyrrell West	390,382	..	801	389,581
5. Wycheproof	243,233	700	523	242,010
6. Carwarp	43,959	..	..	43,959
7. Coliban	1,651,020	..	159	1,650,861
8. Coreena	45,780	..	..	45,780
9. Dandenong	40,243	5,128	1,506	33,609
10. Dering	13,050	..	..	13,050
11. Eureka	7,516	..	..	7,516
12. Hindmarsh	19,638	..	..	19,638
13. Karkaroo	343,637	..	2,924	340,713
14. Kerang North-West Lakes	2,036	..	..	2,036
15. Long Lake	185,009	..	1,117	183,892
16. Mornington Peninsula	946,374	..	2,662	943,712
17. Newstead	12,080	..	10	12,070
18. Pyramid Hill	6,297	..	1,300	4,997
19. Quambatook	4,450	..	758	3,692
20. Tyntynder	398,725	..	78	398,647
21. Upper Western Wimmera	121,910	26,567	3,502	91,841
22. Upper Wimmera United	142,207	10,918	4,516	126,773
23. Waipup Central	45,012	..	21	44,991
24. Waipup West	36,003	..	..	36,003
25. Werribee	11,636	..	..	11,636
26. Western Wimmera	490,656	106,268	13,397	370,991
27. Wimmera United	329,345	25,474	10,266	293,605
28. Wonthaggi	81,573	..	9,071	72,502
29. Yelta	6,138	..	..	6,138
	6,234,131	175,055	53,890	6,005,186

6,005,186

Grand Total

£18,669,217

STATEMENT OF LOAN LIABILITY

STATEMENT of the amount provided by the State to meet Interest and Exchange thereon 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 and Exchange for the year ended 30th June, 1936:—

		Loan Liability of State for Works of Water Supply at 30th June, 1936, exclusive of Melbourne Water Supply.			Net Capital Liability.		Total Interest of £1,031,355 and Exchange thereon of £100,931 debitable to—		Amount Received from Revenues of all Authorities to meet Interest.		
		Total Capital Expenditure.	Deduct Redemption Paid.	Deduct Capital defrayed from (A) Revenue, (B) Treasurer's Advance.	£	Works at Debit of Authorities.	(A) Unallotted Works. (B) Amounts Written Off. (C) Free Headworks. (D) Loan Flotation Charges.	£			
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Free Headworks	..	1,223,280	450	..	1,222,830	..	(C) 1,222,830	53,837	£216,261 (After providing £13,221 for non- revenue producing works, including Free Head- works)		
Goulburn Channel Works (Free Headworks excluded)	..	1,324,327	3,012	50	1,321,265	578,000	(A) 743,265	25,447			
Eildon Reservoir and Waranga Reservoir Enlargement	..	2,529,649	16,554	..	2,513,095	..	(A) 2,513,095	110,642			
Ballan Tunnel, Pykes Creek and Molton Reservoirs	..	252,452	699	..	251,753	290,898	(A) 50,855	8,845			
Bellarine Peninsula Waterworks District	..	472,498	242	..	472,256	326,805	(A) 145,451	14,388			
Maffra-Sale Irrigation and Water Supply District	..	1,256,876	915	..	1,255,961	206,142	(A) 1,049,819	9,076			
Red Cliffs Irrigation and Water Supply District	..	793,434	120	(B) 1,263	792,051	486,299	(A) 305,752	21,410			
Millewa Waterworks District	..	519,304	31	..	519,273	246,173	(A) 273,100	10,838			
Kooberup and Cardinia Flood Protection Districts	..	386,424	46	..	386,378	145,000	(A) 241,378	6,384			
Goulburn Levees and other Flood Protection Schemes	..	60,687	*2,200	..	58,487	15,243	(A) 43,244	671			
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Irrigation Districts	..	4,482,998	37,164	(A) 5,220	4,440,614	3,865,462	(B) 575,152	170,182	195,504 269,936		
Waterworks Districts	..	6,234,131	53,890	(A) 48,969	6,131,272	5,753,975	(A) 202,242 (B) 175,055	253,326			
CAPITAL EXPENDITURE NOT DETAILED ELSEWHERE.											
Campaspe and Loddon Rivers Storages	..	124,789	2,665	..	122,124	..	(A) 122,124	..	5,377 2,540		
Murray Valley Districts (proposed)	..	57,690	..	..	57,690	..	(A) 57,690	..	
Waterworks Trusts (including First Mildura)	..	1,873,827	405,493	..	1,468,334	1,315,086	(B) 153,248	57,898	64,645 29,302		
Local Bodies (Municipalities)	..	837,060	171,515	..	665,545	499,675	(B) 165,870	21,999			
Irrigation and Waterworks Trusts Abolished	..	32,754	30	..	32,724	..	(B) 32,724	..	1,441 6,474		
Free Grants to Local Authorities	..	147,046	..	..	147,046	..	(C) 147,046	..	
River Murray Agreement Works	..	2,667,777	3,250	..	2,664,527	..	(A) 2,664,527	..	117,309 12,739		
Surveys, Exploratory and Preliminary Works	..	308,742	*19,382	..	289,360	..	(A) 289,360	..			
Loan Flotation Expenses—Discounts and Commissions	..	745,224	745,224	..	(B) 745,224	..	32,808 7,071		
Geelong Works—Including Loan Flotation Expenses	..	460,848	300,235	..	160,613	..	(B) 160,613	..			
Totals	..	26,791,817	1,017,893	55,502	25,718,422	13,638,758	12,079,664	600,464	531,822	1,132,286	299,367
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Net Loan Liability
Add Cash in Hand
Deduct National Debt Sinking Fund
Less Amount included in Redemption above
Net Loan Liability of State for Works of Water Supply
Net Deficiency										£832,919	
Total Interest and Exchange										£1,132,286	
Amount available from Revenue to meet Interest										299,367	

* Irrigation and Water Supply Sinking Fund, £21,582.

Dated at the Office of the State Rivers and Water Supply Commission, Treasury Gardens, Melbourne, the 19th day of November, 1936.

L. R. EAST, Chairman.

W. A. ROBERTSON, Commissioner.

P. J. O'MALLEY, Acting Commissioner.

P. J. DESCRIMES, for Secretary.

Note.—Following on the death of Mr. R. H. Horsfield, M.Inst.C.E. (London), M.I.E. (Aust.), Mr. L. R. East, M.C.E., M.Inst.C.E. (London), M.Am.Soc.C.E., M.I.E. (Aust.), was appointed Chairman of the Commission and Mr. W. A. Robertson, M.C.E., M.Inst.C.E. (London), as a Commissioner as on and from 26th October, 1936 ; and, owing to the absence on account of ill-health of Mr. W. Trevean, Commissioner, Mr. P. J. O'Malley, Secretary of the Commission, was appointed as Acting Commissioner as on and from the same date.

STATE RIVERS AND WATER SUPPLY COMMISSION.

WATER SUPPLY STATISTICS.

SUMMARY RELATING TO WATER SUPPLY IN VICTORIA.

Victoria—Area	..	..	..	..	..	..	56,000,000 acres
Rainfall	..	..	..	..	..	..	10 inches to 80 inches
Total Expenditure Country Water Supply to 30th June, 1936	..	..	..	..	..	..	£24,970,619
Channels—Length—							
Irrigation Supply	..	..	..	..	..	..	4,374 miles
Domestic and Stock Supply	..	..	..	..	..	..	7,943 miles
Drainage	..	..	..	..	..	..	1,668 miles
Total	..	..	..	..	..	..	13,985 miles
Area of lands in Victoria artificially supplied with water for domestic and stock purposes by channels, tanks, and bores	..	..	..	..	..	..	15,063,000 acres
This represents over one-quarter of the total area of the State—actually two-fifths of the agricultural lands							
Area commanded by irrigation channels	..	..	..	..	..	..	2,024,000 acres
Area Irrigated—1935-36	..	..	..	..	..	..	495,835 acres
Area benefited by Flood Protection Works	..	..	..	..	..	..	160,500 acres
Storages—							
Present capacity	..	..	..	..	..	..	1,887,100 acre feet
Additional storage being provided by works in course of construction	..	..	..	..	..	..	39,580 acre feet
Further storage which could be provided by completion of existing works	..	..	..	..	..	..	420,500 acre feet
Districts administered by Commission—							
Irrigated Districts—Water supplied for cultivation	..	..	..	..	..	..	31 districts
Domestic and Stock Districts—Water supplied to fill excavated storage tanks	..	..	..	..	..	..	31 districts
Flood Protection Districts	..	..	..	..	..	..	5 districts
Local Waterworks Trusts and Local Sewerage Authorities supervised by Commission	..	..	..	..	..	..	151 districts
Country Towns—Reticulated pipe supplies for domestic use—							
Administered by Commission	..	..	..	..	..	..	107 towns
„ Waterworks Trusts	..	..	..	..	..	..	111 towns
„ Local Governing Bodies	..	..	..	..	..	..	16 towns
Total Population in Country Towns supplied with water	..	..	..	..	..	..	409,500 persons

WATER SUPPLY MAP OF THE STATE.

A map of Victoria showing water supply undertakings within the State, is inserted in this Report. This map gives some idea of the important water supply works administered by the Commission and shows the areas supplied with water for Irrigation and for Domestic and Stock purposes, and lands which are included in flood protection districts. Storage Reservoirs, Main Channels and towns which are supplied with water from the Commission's pipe reticulation systems are also shown, as well as other towns in which local Waterworks Trusts, controlled by the Commission, administer the water supply, and towns having sewerage systems.

WATER RESOURCES AND DISTRIBUTION WORKS

FOR

IRRIGATION, DOMESTIC, AND STOCK SUPPLIES

REFERENCE

NATURAL WATER RESOURCES	- - - - -	shown thus	
IRRIGATION DISTRICTS	- - - - -	"	
RURAL DOMESTIC AND STOCK SUPPLY DISTRICTS—			
ADMINISTERED BY COMMISSION	- - - - -	"	
ADMINISTERED BY WATERWORKS TRUSTS	- - - - -	"	
TOWN SUPPLIES—			
ADMINISTERED BY COMMISSION	- - - - -	"	
ADMINISTERED BY WATERWORKS TRUSTS	- - - - -	"	
FLOOD PROTECTION DISTRICTS	- - - - -	"	
COUNTRY SEWERAGE SYSTEMS OR PROPOSALS	- - - - -	"	
WORKS, THUS—			
STORAGES			
WEIRS			
MAIN CHANNELS		PIPE LINES	
TANKS		BORES	
WORKS UNDER CONSTRUCTION	- - - - -		
SCALE—2 1/2 MILES TO 1 INCH			
1935			

