

1925.

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VICTORIA

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STATE RIVERS AND WATER SUPPLY COMMISSION.

---

TWENTIETH  
ANNUAL REPORT.

---

1924-25.

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

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By Authority

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# STATE RIVERS AND WATER SUPPLY COMMISSION.

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WM. CATTANACH, CHAIRMAN,

J. S. DETHRIDGE, COMMISSIONER,

E. SHAW, COMMISSIONER.

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## ANNUAL REPORT, 1924-25.

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In compliance with the provisions of the Water Acts, the State Rivers and Water Supply Commission submits the following Report and Statement for the Financial Year 1924-25, and Estimates for the ensuing year.

## WORKS UNDER CONTROL OF COMMISSION.

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

## A.—FREE HEADWORKS.

| DESCRIPTION OF WORKS.  | Capital Debit at<br>30th June, 1925.<br>Exclusive of cost<br>of Loan Flotation |
|--|--|
| 1. <b>Broken River Works</b> :—Casey's Weir and offtake, with about 59 chains of channel to the Broken Creek; Gowangardie Weir with offtake sluice .. .. .   | £<br>14,853  |
| 2. <b>Goulburn River Works</b> :—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) .. .. .  | 738,244  |
| 3. <b>Kerang North-West Lakes Works</b> :—Weir on the Loddon River at its confluence with the Pyramid Creek; regulating weirs at the effluence from the Loddon of the Sheepwash and Washpen Creeks; channel from the Washpen Creek regulator to Reedy Lake, Middle Lake, Third Lake, Lake Charm, Race-course Lake, Cullen's Lake, Kangaroo Lake, and Lake Tutchewop, and to the Little Murray River, with water storage works at these lakes .. .. . | 21,484   |
| 4. <b>Kow Swamp Works</b> :—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 .. .   | 187,566  |
| 5. <b>Lake Lonsdale Reservoir</b> :—Reservoir at Lake Lonsdale, on the Little Wimmera River, near Ledcourt .. .. .   | 49,054   |
| 6. <b>Loddon River Works</b> :—Laanecoorie Weir, on the Loddon; Bridgewater Weir, on the Loddon; Kinypanial Weir, on the Loddon .. .. .  | 167,636  |
| 7. <b>Long Lake Pumping Works</b> :—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. <b>Lower Wimmera Compensation Works</b> :—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-<br>stead; Jeparit Weir, on the Wimmera, near Jeparit township .. .. .   | 8,558  |
| Total .. .. .  | <b>1,214,741</b>   |

## B.—MAIN SUPPLY WORKS.

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

Cost Apportioned and to be Apportioned to Districts benefited.

| Name of Work.  | Capital<br>Debit at<br>30th June,<br>1925.<br>£ | Tentative Debits to Districts, 1924-25.<br>£ |                  |
|--|---|--|------------------|
| <b>Goulburn Main Channels (Free Headworks excluded)—</b> |   |  |                  |
| 1. East Goulburn .. .. .                                 | 177,949   | Rodney .. .. .                               | 120,000          |
| 2. Waranga Reservoir to Campaspe ..                      | 265,700   | Tragowel Plains .. .. .                      | 100,000          |
| 3. West of Campaspe .. .. .                              | 354,358   | Richester .. .. .                            | 74,000           |
| 4. Goulburn Main Channel Distri-<br>butaries .. .. .     | 84,443  | Tongala .. .. .                              | 58,000           |
|  |   | Shepparton .. .. .                           | 57,000           |
|  |   | Deakin .. .. .                               | 24,000           |
|  |   | Echuca North .. .. .                         | 17,000           |
|  |   | Dingee .. .. .                               | 15,000           |
|  |   | Stanhope .. .. .                             | 15,000           |
|  | 882,450   |  | 481,000          |
|  |   |  | <b>882,450</b>   |
| <b>Goulburn Storages—</b>                                |   |  |                  |
| 5. Sugarloaf Reservoir .. .. .                           | 1,128,618                                       |  |                  |
| 6. Waranga Reservoir Enlargement                         | 518,243   |  |                  |
|  | 1,646,861                                       |  | <b>1,646,861</b> |
| <b>Bacchus Marsh and Werribee Schemes—</b>               |   |  |                  |
| 7. Ballan Tunnel .. .. .                                 | 18,906  | Werribee .. .. .                             | 8,900            |
| 8. Pykes Creek Reservoir .. .. .                         | 65,134  | Bacchus Marsh .. .. .                        | 76,040           |
| 9. Melton Reservoir .. .. .                              | 84,608  | Werribee .. .. .                             | 46,000           |
|  | 168,648   |  |                  |
|  |   |  | <b>168,648</b>   |
| <b>Maffra Scheme—</b>                                    |   |  |                  |
| 10. Glenmaggie Reservoir .. .. .                         | 589,761   | Irrigation District to be debited later ..   | 589,761          |
| <b>Red Cliffs Scheme—</b>                                |   |  |                  |
| 11. Main and Distributary Channels                       | 658,684   | Irrigation District to be debited later ..   | 658,684          |
| <b>Millewa District—</b>                                 |   |  |                  |
| 12. Main and Distributary Channels                       | 179,417   | Waterworks District to be debited later ..   | 179,417          |
| <b>Flood Protection Districts—</b>                       |   |  |                  |
| 13. Kooweerup and Cardinia .. .. .                       | 245,214   | £  |                  |
| 14. Goulburn Levees .. .. .                              | 51,417  | Lower Kooweerup and Cardinia                 | 93,000           |
|  | 296,631   |  |                  |
|  |   |  | <b>296,631</b>   |
| Carried forward .. .. .                                  |   |  | <b>5,637,193</b> |

WORKS UNDER CONTROL OF COMMISSION—*continued.*Capital Debit  
at 30th June,  
1925.  
Exclusive  
of Cost of Loan  
Flotation.

Brought forward .. .. .

£  
5,637,193

## C.—IRRIGATION AND WATER SUPPLY DISTRICTS.

Distributary Works within Districts under the control of the Commission.

| Name of District<br>(Including Urban Divisions) | Total Capital<br>Expenditure. | Capital Written<br>Off by Acts<br>1925 and 1921. | Redemption<br>Paid to<br>Treasury. | Capital<br>Debit at<br>30th June, 1925. |
|---|-------------------------------|--|------------------------------------|---|
|   | £                             | £  | £                                  | £                                       |
| 1. Bacchus Marsh .. .. .                        | 84,415                        | 8,906  | 493                                | 75,016                                  |
| 2. Boort .. .. .                                | 63,933                        | 35,259   | 1,794                              | 26,880                                  |
| 3. Campaspe .. .. .                             | 64,178                        | 52,685   | 305                                | 11,188                                  |
| 4. Cohuna and Gannawarra .. .. .                | 302,727                       | 82,376   | 1,338                              | 219,013                                 |
| 5. Deakin .. .. .                               | 83,984                        | 34,748   | 2,144                              | 47,092                                  |
| 6. Dingee .. .. .                               | 14,969                        | ..   | ..                                 | 14,969                                  |
| 7. Dry Lake .. .. .                             | 1,704                         | 686  | 299                                | 719                                     |
| 8. Echuca North .. .. .                         | 20,698                        | ..   | ..                                 | 20,698                                  |
| 9. Kerang .. .. .                               | 94,728                        | 35,338   | 2,334                              | 57,056                                  |
| 10. Koondrook .. .. .                           | 167,304                       | 30,872   | 1,562                              | 134,870                                 |
| 11. Merbein .. .. .                             | 195,103                       | ..   | 133                                | 194,970                                 |
| 12. Mystic Park .. .. .                         | 12,023                        | ..   | ..                                 | 12,023                                  |
| 13. Nyah .. .. .                                | 92,645                        | ..   | ..                                 | 92,645                                  |
| 14. Rochester .. .. .                           | 166,042                       | ..   | ..                                 | 166,042                                 |
| 15. Rodney .. .. .                              | 493,109                       | 149,949  | 8,967                              | 334,193                                 |
| 16. Shepparton .. .. .                          | 99,490                        | ..   | 412                                | 99,078                                  |
| 17. Stanhope .. .. .                            | 60,707                        | ..   | ..                                 | 60,707                                  |
| 18. Swan Hill .. .. .                           | 132,088                       | 19,799   | 371                                | 111,918                                 |
| 19. Tongala .. .. .                             | 85,364                        | ..   | ..                                 | 85,364                                  |
| 20. Tragowel Plains .. .. .                     | 218,658                       | 124,534  | 527                                | 93,597                                  |
| 21. Tresco .. .. .                              | 74,642                        | ..   | ..                                 | 74,642                                  |
| 22. Werribee .. .. .                            | 84,242                        | ..   | ..                                 | 84,242                                  |
|   | 2,612,753                     | 575,152  | 20,679                             | 2,016,922                               |

2,016,922

## D.—WATERWORKS AND FLOOD PROTECTION DISTRICTS.

Distributary Works within Districts under the control of the Commission.

| Name of District<br>(Including Urban Districts) | Total Capital<br>Expenditure. | Capital<br>Written<br>Off by<br>Acts 1925<br>and 1921. | Redemption<br>Paid to<br>Treasury. | Capital Debit<br>at 30th June,<br>1925. |
|---|-------------------------------|--|------------------------------------|---|
|   | £                             | £  | £                                  | £                                       |
| 1. Birchip .. .. .                              | ..                            | ..   | ..                                 | ..                                      |
| 2. Sea Lake .. .. .                             | ..                            | ..   | ..                                 | ..                                      |
| 3. Tyrrell .. .. .                              | ..                            | ..   | ..                                 | ..                                      |
| 4. Wycheproof .. .. .                           | ..                            | ..   | ..                                 | ..                                      |
| 5. Carwarp .. .. .                              | 19,764                        | ..   | ..                                 | 19,764                                  |
| 6. Coliban .. .. .                              | 1,327,295                     | ..   | ..                                 | 1,327,295                               |
| 7. Dandenong .. .. .                            | 30,783                        | 5,128  | 1,506                              | 24,149                                  |
| 8. Karkaroc .. .. .                             | 150,366                       | ..   | 2,693                              | 147,673                                 |
| 9. Kerang North-West Lakes .. .. .              | 1,879                         | ..   | ..                                 | 1,879                                   |
| 10. Long Lake .. .. .                           | 69,029                        | ..   | 619                                | 68,410                                  |
| 11. Mornington Peninsula .. .. .                | 411,512                       | ..   | ..                                 | 411,512                                 |
| 12. Ouyen .. .. .                               | 16,497                        | ..   | ..                                 | 16,497                                  |
| 13. Tyntynder .. .. .                           | 176,956                       | ..   | ..                                 | 176,956                                 |
| 14. Upper Western Wimmera .. .. .               | 58,195                        | 26,567   | 3,290                              | 28,338                                  |
| 15. Upper Wimmera United .. .. .                | 70,512                        | 10,918   | 4,319                              | 55,275                                  |
| 16. Walpeup East .. .. .                        | 5,777                         | ..   | ..                                 | 5,777                                   |
| 17. Walpeup West .. .. .                        | 25,168                        | ..   | ..                                 | 25,168                                  |
| 18. Werribee .. .. .                            | 11,172                        | ..   | ..                                 | 11,172                                  |
| 19. Western Wimmera .. .. .                     | 232,180                       | 106,268  | 12,558                             | 113,354                                 |
| 20. Wimmera United .. .. .                      | 164,260                       | 25,474   | 9,811                              | 128,975                                 |
| 21. Wonthaggi .. .. .                           | 64,992                        | ..   | 8,044                              | 56,948                                  |
| 22. Yelta .. .. .                               | 4,093                         | ..   | ..                                 | 4,093                                   |
| 23. Wimmera Main Channels .. .. .               | 274,724                       | ..   | ..                                 | 274,724                                 |
| 24. Wimmera Storages—                           |                               |  |                                    |   |
| Fyans Lake .. .. .                              | 42,427                        | ..   | ..                                 | 42,427                                  |
| Taylors Lake .. .. .                            | 195,738                       | ..   | ..                                 | 195,738                                 |
| Pine Lake .. .. .                               | 59,304                        | ..   | ..                                 | 59,304                                  |
| Lake Whitton .. .. .                            | 10,334                        | ..   | ..                                 | 10,334                                  |
| 25. Echuca Flood Protection .. .. .             | 1,168                         | ..   | ..                                 | 1,168                                   |
|   | 3,877,389                     | 175,055  | 45,113                             | 3,657,221                               |

3,657,221

Carried forward .. .. .

11,311,336

| WORKS UNDER CONTROL OF COMMISSION— <i>continued.</i> |                             |  |                                 | Capital Debt<br>at 30th June,<br>1925.<br>Exclusive<br>of Cost of Loan<br>Flotation. |
|--|-----------------------------|--|---------------------------------|--|
| Brought forward .. ..                                |                             |  |                                 | £<br>11,311,336  |
| <b>E.—WATERWORKS TRUSTS DISTRICTS.</b>               |                             |  |                                 |  |
| DISTRICTS HELD IN TRUST BY THE COMMISSION.           |                             |  |                                 |  |
| Name of Trust.                                       | Total Advances<br>by State. | Capital Written<br>Off by Acts<br>1625 and 1651. | Redemption Paid<br>to Treasury. | Capital Debt at<br>30th June, 1925.  |
|  | £                           | £  | £                               | £  |
| 1. Avoca Water Trust—                                |                             |  |                                 |  |
| Rural District .. ..                                 | 9,890                       | 2,494  | 2,040                           | 5,356  |
| Urban District (Quambatook) ..                       | 4,036                       | ..   | 453                             | 3,583  |
| 2. Carrum Waterworks Trust ..                        | 29,516                      | 7,732  | 3,375                           | 18,409   |
| 3. Loddon United Waterworks Trust—                   |                             |  |                                 |  |
| Rural District .. ..                                 | 22,171                      | 1,717  | 5,244                           | 15,210   |
| Urban District (Mitiamo) ..                          | 3,213                       | ..   | 83                              | 3,130  |
|  | 68,826                      | 11,943   | 11,195                          | 45,688   |
| <b>Grand Total .. ..</b>                             |                             |  |                                 | <b>£11,311,336</b>   |

#### LANDS SUPPLIED WITH WATER WITHIN THE STATE.

The area of country lands within the State artificially supplied with water for domestic and ordinary use and for watering stock is, approximately, 22,214 square miles, equal to about 14,217,000 acres.

The area under irrigated culture for all kinds of crop was 375,503 acres, the largest yet recorded, being an increase of 50,945 acres over the area irrigated in the previous year, and 64,072 acres above the average of the previous four years. The area irrigated last year includes some 17,000 acres watered under yearly permits granting authority to divert water from streams throughout the State.

The number of separate towns supplied, exclusive of the city of Melbourne and its suburbs, is as shown in the following statement :—

| Controlling Authorities.      | Number of Towns Supplied. | Estimated Population Served. |
|-------------------------------|---------------------------|------------------------------|
| Commission ... ..             | 69                        | 106,580                      |
| Waterworks Trusts ... ..      | 106                       | 174,070                      |
| Local Governing Bodies ... .. | 18                        | 74,720                       |
| Totals ... ..                 | 193                       | 355,370                      |

## 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 1924-25.

| Name of District.                                     | Area Irrigated (Acres). |                                    |  |                |                                   |              |                | Total.         |
|---|-------------------------|------------------------------------|--|----------------|-----------------------------------|--------------|----------------|----------------|
|   | Cereals.                | Lucerne grown for Pasture and Hay. | Sorghum and other Annual Fodder Crops. | Pastures.      | Vineyards, Orchards, and Gardens. | Fallow.      | Miscellaneous. |                |
| <i>Supplied from Goulburn State Works.</i>            |                         |                                    |  |                |                                   |              |                |                |
| Shepparton .. .. .                                    | 498                     | 2,639                              | 187                                    | 1,701          | 9,220                             | 40           | 42             | 14,327         |
| South Shepparton .. .. .                              | 4,000                   | ..                                 | ..                                     | ..             | ..                                | ..           | ..             | 4,000          |
| Rodney .. .. .  | 295                     | 25,334                             | 487                                    | 11,928         | 8,067                             | 656          | 470            | 47,237         |
| Stanhope .. .. .                                      | ..                      | 9,308                              | 144                                    | 554            | 408                               | 166          | ..             | 10,580         |
| Tongala .. .. .                                       | 212                     | 9,081                              | 360                                    | 940            | 1,858                             | 387          | 62             | 12,900         |
| Rochester .. .. .                                     | 342                     | 21,153                             | 1,035                                  | 3,897          | 2,178                             | 249          | 290            | 29,144         |
| Echuca North .. .. .                                  | 38                      | 431                                | ..                                     | 1,155          | ..                                | 20           | 299            | 1,943          |
| Dingee .. .. .  | 98                      | 2,425                              | 134                                    | 677            | ..                                | ..           | ..             | 3,334          |
| Tragowel Plains .. .. .                               | 10,562                  | 855                                | 5,957                                  | 30,244         | ..                                | 136          | 456            | 48,210         |
| Deakin .. .. .  | 37                      | 1,197                              | 37                                     | 893            | 12                                | ..           | ..             | 2,176          |
| Boort .. .. .   | 745                     | 280                                | 1,461                                  | 3,139          | ..                                | 93           | 151            | 5,869          |
| Totals .. .. .  | 16,827                  | 72,703                             | 9,802                                  | 55,128         | 21,743                            | 1,747        | 1,770          | 179,720        |
| <i>Supplied from River Murray State Works.</i>        |                         |                                    |  |                |                                   |              |                |                |
| <i>(a) Torrumbarry Weir.</i>                          |                         |                                    |  |                |                                   |              |                |                |
| Cohuna .. .. .  | 1,429                   | 9,699                              | 2,709                                  | 5,962          | 191                               | 272          | 817            | 21,079         |
| Gaunawarra .. .. .                                    | 3,063                   | 1,393                              | 3,542                                  | 10,292         | 7                                 | 28           | 807            | 19,132         |
| Koondrook .. .. .                                     | 3,483                   | 1,013                              | 1,782                                  | 9,075          | 266                               | ..           | ..             | 15,619         |
| Swan Hill .. .. .                                     | 3,836                   | 3,780                              | 1,300                                  | 3,472          | 2,915                             | 410          | 6              | 15,719         |
| Third Lake .. .. .                                    | 116                     | 40                                 | 103                                    | 431            | ..                                | 19           | 4              | 713            |
| Mystic Park .. .. .                                   | 200                     | 250                                | 210                                    | 250            | 5                                 | 150          | ..             | 1,065          |
| Tresco .. .. .  | ..                      | ..                                 | ..                                     | ..             | 1,374                             | ..           | ..             | 1,374          |
| Kerang .. .. .  | 5,970                   | 699                                | 4,836                                  | 16,685         | 17                                | 143          | 11             | 28,361         |
| Dry Lake .. .. .                                      | 90                      | ..                                 | 56                                     | 80             | 2                                 | ..           | ..             | 228            |
| Kerang North-West Lakes .. .. .                       | 1,415                   | 336                                | 775                                    | 2,737          | 378                               | ..           | ..             | 5,641          |
| Lands supplied direct (outside Districts) .. .. .     | 990                     | 2,282                              | 479                                    | 3,833          | 23                                | ..           | 35             | 7,642          |
| Totals .. .. .  | 20,592                  | 19,492                             | 15,792                                 | 52,817         | 5,178                             | 1,022        | 1,680          | 116,573        |
| <i>(b) Direct from River.</i>                         |                         |                                    |  |                |                                   |              |                |                |
| Nyah .. .. .  | ..                      | 10                                 | 40                                     | ..             | 2,620                             | ..           | 20             | 2,690          |
| Red Cliffs .. .. .                                    | ..                      | ..                                 | ..                                     | ..             | 8,550                             | ..           | 25             | 8,575          |
| Merbein .. .. .                                       | ..                      | 180                                | ..                                     | ..             | 7,060                             | ..           | 392            | 7,632          |
| Totals .. .. .  | ..                      | 190                                | 40                                     | ..             | 18,230                            | ..           | 437            | 18,897         |
| Totals (River Murray State Works)                     | 20,592                  | 19,682                             | 15,832                                 | 52,817         | 23,408                            | 1,022        | 2,117          | 135,470        |
| <i>Supplied from Loddon and Other State Works.</i>    |                         |                                    |  |                |                                   |              |                |                |
| Boort .. .. .   | 3,500                   | 200                                | 900                                    | 6,100          | ..                                | ..           | ..             | 10,700         |
| Coliban .. .. .                                       | 251                     | 529                                | 292                                    | 933            | 4,127                             | 257          | 241            | 6,630          |
| Campaspe .. .. .                                      | 46                      | 327                                | 33                                     | 17             | 4                                 | ..           | ..             | 427            |
| Western Wimmera .. .. .                               | 15                      | 34                                 | 30                                     | 44             | 1,378                             | ..           | ..             | 1,501          |
| Bacchus Marsh .. .. .                                 | 22                      | 1,522                              | 49                                     | 663            | 144                               | 87           | ..             | 2,487          |
| Werribee .. .. .                                      | 413                     | 4,612                              | 16                                     | 162            | 215                               | 310          | 345            | 6,073          |
| Totals .. .. .  | 4,247                   | 7,224                              | 1,320                                  | 7,919          | 5,868                             | 654          | 586            | 27,818         |
| <i>Supplied from other Works.</i>                     |                         |                                    |  |                |                                   |              |                |                |
| First Mildura District .. .. .                        | ..                      | 167                                | 154                                    | ..             | 11,639                            | ..           | 296            | 12,256         |
| Private Diversions—Kerang (Outside Districts) .. .. . | 1,279                   | 184                                | 625                                    | 1,039          | 14                                | ..           | 11             | 3,152          |
| Other Private Diversions throughout the State .. .. . | 2,270                   | 3,240                              | 2,950                                  | 2,660          | 4,108                             | 1,440        | 419            | 17,087         |
| Totals .. .. .  | 3,549                   | 3,591                              | 3,729                                  | 3,699          | 15,761                            | 1,440        | 726            | 32,495         |
| <b>Grand Totals, 1924-25 .. .. .</b>                  | <b>45,215</b>           | <b>103,200</b>                     | <b>30,683</b>                          | <b>119,563</b> | <b>68,760</b>                     | <b>4,863</b> | <b>5,199</b>   | <b>375,503</b> |
| Grand Totals, 1923-24 .. .. .                         | 32,240                  | 94,479                             | 33,356                                 | 91,912         | 64,647                            | 4,523        | 3,401          | 324,558        |

## (B) COMPARATIVE STATEMENT OF THE EXTENT OF IRRIGATION, 1920-21 TO 1924-25.

|  | Area under Irrigation (Acres). |          |          |          |          |
|--|--------------------------------|----------|----------|----------|----------|
|  | 1920-21.                       | 1921-22. | 1922-23. | 1923-24. | 1924-25. |
| Goulburn State Works .. .. .           | 129,017                        | 141,562  | 166,022  | 144,131  | 179,720  |
| River Murray State Works .. .. .       | 93,286                         | 90,668   | 112,656  | 112,829  | 135,470  |
| Loddon and other State Works .. .. .   | 31,670                         | 25,944   | 39,043   | 39,243   | 27,818   |
| Mildura and Private Diversions .. .. . | 28,561                         | 29,733   | 33,006   | 28,355   | 32,495   |
| Totals .. .. .                         | 282,534                        | 287,907  | 350,727  | 324,558  | 375,503  |

**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 a rate was made for the first time in the new Urban Waterworks Districts of Brim, Leitchville, Manangatang, Nyah West, Piangil, Red Cliffs, and Spring Vale; while in the Mystic Park Irrigation and Water Supply District a compulsory irrigation charge was also, for the first time, levied. The Waterworks District of Carwarp was subdivided into the Carwarp and Carwarp Central Waterworks Districts.

In twenty-seven 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 and Cardinia Flood Protection Districts, where the charging is on an acreage basis, were similarly divided into three 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 5 of the *Water Act 1916*, a minimum rate on the basis of £8 per 640 acres was fixed by the Commission on the first division lands of the Western Wimmera and Wimmera United Waterworks Districts, while in the Birchip, Carwarp, Karkaroc, Long Lake, Sea Lake, Tyntynder, Tyrrell, Upper Western Wimmera, Upper Wimmera United, and Wycheproof Waterworks Districts the minimum was fixed at £10 13s. 4d. per 640 acres, in Carwarp Central District at £16 per 640 acres and in the Walpeup West Waterworks District at £3 6s. 8d. per 640 acres.

In eighteen districts the Commission made and levied compulsory irrigation charges, while in three Flood Protection Districts and in five Waterworks Trusts Districts taken over by the Commission a rate or charge was also made. 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, 1925. | Period of Rate. | Estimated Number of Persons dwelling in District. |
|---|--------------------------------------|--|-----------------|---|
|---|--------------------------------------|--|-----------------|---|

**IRRIGATION AND WATER SUPPLY DISTRICTS.**

|                        | Valuation by Commission. | Divisions.     |       |       | Period of Rate.                    | Estimated Number of Persons dwelling in District. |
|------------------------|--------------------------|----------------|-------|-------|------------------------------------|---|
|                        |                          | 1st.           | 2nd.  | 3rd.  |                                    |   |
|                        |                          | s. d.          | s. d. | s. d. |                                    |   |
| 1. BACCHUS MARSH ..    | £ 1,486                  | 1 0            | ..    | ..    | 1st July, 1924, to 30th June, 1925 | 776   |
| 2. BOORT .. ..         | 15,514                   | 2 0            | 1 0   | ..    | " " "                              | 1,000   |
| 3. CAMPASPE .. ..      | 11,190                   | 2 0            | 1 0   | 0 6   | " " "                              | 576   |
| 4. COHUNA .. ..        | 20,639                   | 2 0            | 1 0   | ..    | " " "                              | 1,175   |
| 5. DEAKIN .. ..        | 53,116                   | 1 8            | 0 10  | 0 5   | " " "                              | 1,900   |
| 6. DINGEE .. ..        | 2,959                    | 1 0            | ..    | ..    | " " "                              | 280   |
| 7. DRY LAKE .. ..      | 250                      | (No rate made) |       |       | " " "                              | 11  |
| 8. ECHUCA NORTH ..     | 5,655                    | 1 0            | 0 6   | ..    | 1st July, 1924, to 30th June, 1925 | 550   |
| 9. GANNAWARRA .. ..    | 15,094                   | 2 0            | 1 0   | ..    | " " "                              | 575   |
| 10. KERANG .. ..       | 18,185                   | 2 6            | 1 3   | 0 7½  | " " "                              | 1,025   |
| 11. KOONDBROOK ..      | 18,746                   | 2 0            | 1 0   | ..    | " " "                              | 1,150   |
| 12. MERBEIN .. ..      | 25,807                   | 1 0            | ..    | ..    | " " "                              | 3,500   |
| 13. MYSTIC PARK ..     | 4,607                    | 1 0            | ..    | ..    | " " "                              | 125   |
| 14. NYAH .. ..         | 5,842                    | 1 0            | ..    | ..    | " " "                              | 1,000   |
| 15. ROCHESTER .. ..    | 51,077                   | 1 0            | 0 6   | 0 3   | " " "                              | 3,180   |
| 16. RODNEY .. ..       | 144,901                  | 1 0            | 0 6   | 0 3   | " " "                              | 5,670   |
| 17. SHEPPARTON .. ..   | 34,295                   | 1 0            | ..    | ..    | " " "                              | 2,120   |
| 18. STANHOPE .. ..     | 15,085                   | 1 0            | ..    | ..    | " " "                              | 1,050   |
| 19. SWAN HILL .. ..    | 22,925                   | 1 0            | ..    | ..    | " " "                              | 1,160   |
| 20. TONGALA .. ..      | 24,755                   | 1 0            | ..    | ..    | " " "                              | 2,100   |
| 21. TRAGOWEL PLAINS .. | 38,232                   | 1 0            | 0 6   | ..    | " " "                              | 1,480   |
| 22. WERRIBEE .. ..     | 17,401                   | 1 0            | ..    | ..    | " " "                              | 630   |



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, 1925. |       |       | Period of Rate.                    | Estimated Number of Persons dwelling in District. |
|---|--------------------------------------|--|-------|-------|------------------------------------|---|
| <b>WATERWORKS DISTRICTS.</b>  |                                      |  |       |       |                                    |   |
|   | Valuation by Commission              | Divisions.   |       |       |                                    |   |
|   | £                                    | 1st.   | 2nd.  | 3rd.  |                                    |   |
|   |                                      | s. d.  | s. d. | s. d. | 1st July, 1924, to 30th June, 1925 |   |
| 23. AXE CREEK ..  | 1,628                                | 2 0  | ..    | ..    | ..                                 | 240   |
| 24. BIRCHIP ..  | 31,593                               | 2 4  | 1 2   | 0 7   | ..                                 | 2,540   |
| 25. CARWARP ..  | 7 516                                | 3 10   | 1 11  | 0 11½ | ..                                 | 750   |
| 26. CARWARP CENTRAL ..  | 1,119                                | 5 0  | 2 6   | ..    | ..                                 | 220   |
| 27. HARDCOURT ..  | 7,043                                | 1 6  | ..    | ..    | ..                                 | 600   |
| 28. KARKAROOC ..  | 115,265                              | 2 2  | 1 1   | 0 6½  | ..                                 | 4,000   |
| 29. KERANG N.W. LAKES   | 6,003                                | 0 6  | ..    | ..    | ..                                 | 550   |
| 30. LONG LAKE ..  | 67,190                               | 2 10   | 1 5   | 0 8½  | ..                                 | 1,890   |
| 31. SEA LAKE ..   | 54,439                               | 2 8  | 1 4   | 0 8   | ..                                 | 2,265   |
| 32. TYNTYNDER ..  | 51,552                               | 3 4  | 1 8   | 0 10  | ..                                 | 3 115   |
| 33. TYRRELL ..  | 66,867                               | 3 4  | 1 8   | 0 10  | ..                                 | 4,100   |
| 34. UPPER WEST'N WIMMERA  | 53,808                               | 1 6  | 0 9   | 0 4½  | ..                                 | 1,600   |
| 35. UPPER WIMMERA UNITED  | 81,965                               | 1 6  | 0 9   | 0 4½  | ..                                 | 2,200   |
| 36. WALPEUP EAST ..   | 18,056                               | 0 9  | 0 4½  | ..    | ..                                 | 1,650   |
| 37. WALPEUP WEST ..   | 60,133                               | 0 7  | 0 3½  | ..    | ..                                 | 3,900   |
| 38. WERRIBEE ..   | 6,717                                | 2 0  | ..    | ..    | ..                                 | 140   |
| 39. WESTERN WIMMERA ..  | 268,431                              | 1 2  | 0 7   | 0 3½  | ..                                 | 8,900   |
| 40. WIMMERA UNITED ..   | 245,382                              | 1 2  | 0 7   | 0 3½  | ..                                 | 6,600   |
| 41. WYCHEPROOF ..   | 52,768                               | 2 4  | 1 2   | 0 7   | ..                                 | 2,415   |
| 42. YELTA ..  | 2,421                                | 3 4  | ..    | ..    | ..                                 | 130   |
| <b>URBAN DIVISIONS AND DISTRICTS.</b>   |                                      |  |       |       |                                    |   |
|   | Municipal Valuation.                 |  |       | s. d. |                                    |   |
|   | £                                    |  |       |       | 1st July, 1924, to 30th June, 1925 |   |
| 43. BACCHUS MARSH ..  | 11,301                               | ..   | ..    | 1 6   | ..                                 | 1,780   |
| 44. BERRIWILLOCK ..   | 1,272                                | ..   | ..    | 3 6   | ..                                 | 150   |
| 45. BERWICK ..  | 3,418                                | ..   | ..    | 2 0   | ..                                 | 600   |
| 46. BEULAH ..   | 4,250                                | ..   | ..    | 2 3   | ..                                 | 575   |
| 47. BIRCHIP ..  | 5,287                                | ..   | ..    | 2 0   | ..                                 | 945   |
| 48. BITTERN ..  | 273                                  | ..   | ..    | 3 0   | ..                                 | 60  |
| 49. BRIN ..   | 807                                  | ..   | ..    | 4 6   | ..                                 | 180   |
| 50. CARRUM ..   | 59,969                               | ..   | ..    | 1 6   | ..                                 | 6,300   |
| 51. COHUNA ..   | 7,937                                | ..   | ..    | 1 9   | ..                                 | 760   |
| 52. COROP ..  | 357                                  | ..   | ..    | 2 0   | ..                                 | 90  |
| 53. CRANBOURNE ..   | 1,546                                | ..   | ..    | 2 0   | ..                                 | 220   |
| 54. CULGOA ..   | 797                                  | ..   | ..    | 4 0   | ..                                 | 150   |
| 55. DANDENONG ..  | 46,982                               | ..   | ..    | 1 3   | ..                                 | 4,200   |
| 56. DIMBOOLA ..   | 11,714                               | ..   | ..    | 1 6   | ..                                 | 1,400   |
| 57. FRANKSTON ..  | 27,849                               | ..   | ..    | 1 6   | ..                                 | 4,050   |
| 58. HOPETOUN ..   | 4,256                                | ..   | ..    | 2 3   | ..                                 | 550   |
| 59. JEPARIT ..  | 6,889                                | ..   | ..    | 1 9   | ..                                 | 700   |
| 60. JUNG JUNG ..  | 617                                  | ..   | ..    | 3 0   | ..                                 | 130   |
| 61. KOONDROOK ..  | 3,264                                | ..   | ..    | 2 6   | ..                                 | 475   |
| 62. LAKE BOGA ..  | 2,222                                | ..   | ..    | 3 0   | ..                                 | 335   |
| 63. LASCELLES ..  | 632                                  | ..   | ..    | 3 6   | ..                                 | 130   |
| 64. LEITCHVILLE ..  | 1,752                                | ..   | ..    | 3 0   | ..                                 | 300   |
| 65. MANANGATANG ..  | 2,021                                | ..   | ..    | 4 0   | ..                                 | 120   |
| 66. MERBEIN ..  | 5,366                                | ..   | ..    | 3 9   | ..                                 | 700   |
| 67. MINYIP ..   | 4,358                                | ..   | ..    | 3 0   | ..                                 | 600   |
| 68. MORNINGTON ..   | 25,559                               | ..   | ..    | 1 6   | ..                                 | 1,800   |
| 69. NATIMUK ..  | 3,404                                | ..   | ..    | 1 6   | ..                                 | 420   |
| 70. NYAH ..   | 760                                  | ..   | ..    | 2 6   | ..                                 | 170   |
| 71. NYAH WEST ..  | 4,107                                | ..   | ..    | 3 0   | ..                                 | 254   |
| 72. OUYEN ..  | 6,741                                | ..   | ..    | 2 9   | ..                                 | 800   |
| 73. PIANGIL ..  | 1,904                                | ..   | ..    | 4 0   | ..                                 | 182   |
| 74. RAINBOW ..  | 8 167                                | ..   | ..    | 1 9   | ..                                 | 900   |
| 75. REDCLIFFS ..  | 3,952                                | ..   | ..    | 4 0   | ..                                 | 1,000   |
| 76. RUPANYUP ..   | 3,513                                | ..   | ..    | 3 0   | ..                                 | 400   |
| 77. SEA LAKE ..   | 4,959                                | ..   | ..    | 2 6   | ..                                 | 580   |
| 78. SOMERVILLE ..   | 1,552                                | ..   | ..    | 2 6   | ..                                 | 240   |
| 79. SOUTH FRANKSTON ..  | 5,582                                | ..   | ..    | 3 4   | ..                                 | 260   |
| 80. SPRINGVALE ..   | 5,859                                | ..   | ..    | 1 6   | ..                                 | 600   |
| 81. ULTIMA ..   | 3,078                                | ..   | ..    | 3 0   | ..                                 | 350   |
| 82. WATCHEM ..  | 2,091                                | ..   | ..    | 3 0   | ..                                 | 200   |
| 83. WERRIBEE ..   | 11,500                               | ..   | ..    | 2 0   | ..                                 | 1,405   |
| 84. WONTHAGGI ..  | 31,407                               | ..   | ..    | 1 6   | ..                                 | 7,000   |
| 85. WOOMELANG ..  | 2,427                                | ..   | ..    | 2 9   | ..                                 | 415   |
| 86. WYCHEPROOF ..   | 3,963                                | ..   | ..    | 2 6   | ..                                 | 765   |

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, 1925.  | Period of Rate.                           | Estimated Number of Persons dwelling in District. |
|---|--|---|---|---|
| <b>COLIBAN SYSTEM.</b>  |  |   |   |   |
| 87. COLIBAN .. .. .   | Municipal Valuation.<br>£<br>339,479     | <i>s. d.</i><br>On Valuations up to £300 .. 1 6<br>(Minimum 20s.)<br>From £301 up to £700 .. 1 3<br>From £701 on 1 0<br>Vacant lands .. 1 6 | 1st July, 1924, to 30th June, 1925        | 61,000  |
| <b>WATERWORKS TRUSTS.</b>   |  |   |   |   |
| 88. AVOCA .. .. .   | Municipal Valuation.<br>£<br>38,904      | <i>s. d.</i><br>.. .. 0 4½  | 1st January, 1925, to 31st December, 1925 | 1,340   |
| 89. MITIAMO (URBAN) .. .. .   | 732                                      | .. .. 4 0   | " " "                                     | 175   |
| 90. QUAMBATOOK (URBAN) .. .. .  | 3,681                                    | .. .. 2 9   | " " "                                     | 310   |
| 91. CARRUM .. .. .  | 31,853                                   | 1st Division .. 3 8<br>2nd Division .. 1 10<br>3rd Division .. 1 0<br>4th Division .. 0 10<br>5th Division .. 0 3                           | " " "                                     | 1,500   |
| 92. LODDON UNITED .. .. .   | Valuation by Commission.<br>£<br>117,437 | 1st Division .. 0 8<br>2nd Division .. 0 4<br>3rd Division .. 0 2   | " " "                                     | 3,400   |

**FLOOD PROTECTION DISTRICTS.**

|                               | Valuation by Commission.<br>£ | <i>s. d.</i>   | Period of Charge.                  |       |
|-------------------------------|-------------------------------|--|------------------------------------|-------|
| 93. ECHUCA (HIGH-ST.) .. .. . | 845                           | .. .. 3 0  | 1st July, 1924, to 30th June, 1925 | 75    |
| 94. CARDINIA .. .. .          | Acres.<br>35,299              | 1st Div. (p.ac.) 3 0<br>2nd Div. (p.ac.) 1 6<br>3rd Div. (p.ac.) 0 9 | " " "                              | 870   |
| 95. LOWER KOOWEERUP .. .. .   | 51,954                        | 1st Div. (p.ac.) 2 0<br>2nd Div. (p.ac.) 1 0<br>3rd Div. (p.ac.) 0 6 | " " "                              | 2,300 |

**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 .. .. .              | 6,655                      | 3,305                               | 3,305   | 22s. 6d.  | 1st October, 1924, to 30th April, 1925   |
| 2. COHUNA .. .. .                     | 34,704                     | 22,381                              | 22,467  | 6s.   | 1st September, 1924, to 30th April, 1925 |
| 3. DINGEE .. .. .                     | 6,356                      | 4,820                               | 4,820   | 7s.   | " " " "                                  |
| 4. ECHUCA NORTH .. .. .               | 13,584                     | 5,679                               | 5,679   | 7s. 6d.   | " " " "                                  |
| 5. GANNAWARRA .. .. .                 | 44,190                     | 17,075                              | 17,075  | 6s.   | " " " "                                  |
| 6. KOONDRICK .. .. .                  | 56,398                     | 17,048                              | 17,048  | 6s.   | " " " "                                  |
| 7. MERBEIN .. .. .                    | 8,274                      | 7,739                               | 19,247  | 24s.<br>Min. 60s. per acre                      | 1st August, 1924, to 30th April, 1925    |
| 8. MYSTIC PARK .. .. .                | 18,025                     | 8,992                               | 2,996   | 6s.   | 1st September, 1924, to 30th April, 1925 |
| 9. NYAH .. .. .                       | 3,671                      | 3,051                               | 7,572   | 20s.<br>Min. 50s. per acre                      | 1st August, 1924, to 30th April, 1925    |
| 10. ROCHESTER .. .. .                 | 125,636                    | 37,940                              | 38,040  | 6s.   | 1st September, 1924, to 30th April, 1925 |
| 11. RODNEY .. .. .                    | 267,655                    | 188,697                             | 51,199  | 6s.   | " " " "                                  |
| 12. SHEPPARTON .. .. .                | 24,720                     | 20,178                              | 20,178  | 6s.   | " " " "                                  |
| 13. STANHOPE .. .. .                  | 26,032                     | 18,943                              | 16,926  | 6s.   | " " " "                                  |
| 14. SWAN HILL .. .. .                 | 35,506                     | 16,925                              | 16,925  | 6s.   | " " " "                                  |
| 15. TONGALA .. .. .                   | 36,231                     | 26,775                              | 22,056  | 6s.   | " " " "                                  |
| 16. TRAGOWEL PLAINS .. .. .           | 182,690                    | 129,831                             | 26,010  | 7s.   | " " " "                                  |
| 17. TRESKO .. .. .                    | 3,646                      | 2,361                               | 5,902   | 16s.<br>Min. 40s. per acre.                     | 1st January, 1924, to 31st Dec., 1924    |
| 18. WERRIBEE .. .. .                  | 9,983                      | 7,895                               | 7,917   | 12s.  | 1st October, 1924, to 30th April, 1925   |

## CONTRACTS.

## STATEMENT OF CONTRACTS ENTERED INTO DURING THE YEAR ENDED 30TH JUNE, 1925.

| No.  | Name of Contractor.            | Work or Supply.                              | Amount<br>(Loan and Vote.) |       |
|------|--------------------------------|--|----------------------------|-------|
|      |                                |  | £                          | s. d. |
| 2141 | Australian Portland Cement Co. | 90,000 bags Cement                           | 24,750                     | 0 0   |
| 2142 | Alfred T. Harman               | Grab Crane, Red Cliffs                       | 1,240                      | 0 0   |
| 2143 | Australian Wood Pipe Co.       | Wood Stave Pipes, Castlemaine                | 1,960                      | 9 4   |
| 2144 | Hume Pipe Co.                  | Concrete Pipes, Castlemaine                  | 279                        | 18 0  |
| 2145 | Dorman Long & Co. Ltd.         | Tank Stands, Dingee, Lockington and Stanhope | 570                        | 0 0   |
| 2146 | W. E. Chatterton               | Boring for water, Walpeup West               | 237                        | 10 0  |
| 2147 | Wm. McKay                      | Tandarra-Calivil Channel                     | 1,061                      | 6 4   |
| 2148 | H. Rawiller                    | Tandarra-Calivil Channel                     | 807                        | 19 2  |
| 2149 | S. A. Stevens                  | Tandarra-Calivil Channel                     | 780                        | 11 9  |
| 2150 | Morgan Hartney                 | Tandarra-Calivil Channel                     | 724                        | 13 0  |
| 2151 | J. F. Considine                | East Goulburn Main Channel Extension         | 1,250                      | 9 8   |
| 2152 | J. F. Considine                | East Goulburn Main Channel Extension         | 1,074                      | 18 2  |
| 2153 | J. F. Considine                | East Goulburn Main Channel Extension         | 1,036                      | 2 8   |
| 2154 | J. F. Considine                | East Goulburn Main Channel Extension         | 777                        | 17 8  |
| 2155 | Mooney & Abrahams              | East Goulburn Main Channel Extension         | 818                        | 11 3  |
| 2156 | Mooney & Abrahams              | East Goulburn Main Channel Extension         | 732                        | 0 1   |
| 2157 | Mooney & Abrahams              | East Goulburn Main Channel Extension         | 677                        | 12 11 |
| 2158 | Mooney & Abrahams              | East Goulburn Main Channel Extension         | 766                        | 3 0   |
| 2159 | E. H. Hemenstall               | Firewood, Hume Reservoir                     | 180                        | 19 0  |
| 2160 | National Portland Cement Ltd.  | 30,000 casks Cement                          | 8,687                      | 10 0  |
| 2161 | P. Forbes                      | Erection Buildings, Werribee                 | 1,005                      | 0 0   |
| 2162 | S. Fitch                       | Deakin Main Drainage Channel                 | 1,011                      | 4 9   |
| 2163 | Australian Portland Cement Co. | 90,000 bags Cement                           | 24,750                     | 0 0   |
| 2164 | V. Hayes                       | Deakin Main Drainage Channel                 | 2,039                      | 11 10 |
| 2165 | G. P. Conlon                   | Boring for water, Walpeup West               | 375                        | 0 0   |
| 2166 | J. Collins                     | Deakin Main Drainage Channel                 | 795                        | 15 3  |
| 2167 | R. S. Stuart                   | Deakin Main Drainage Channel                 | 571                        | 16 3  |
| 2168 | A. McInnes                     | Deakin Main Drainage Channel                 | 877                        | 10 2  |
| 2169 | J. G. Arnold                   | Bin Barges, River Murray Works               | 3,862                      | 0 0   |
| 2170 | Midland Quarries Pty. Ltd.     | Stone Spalls, River Murray Works             | 2,200                      | 0 0   |
| 2171 | McMabon & Smith                | Tandarra-Calivil Channel                     | 512                        | 16 0  |
| 2172 | Ketterer & O'Halloran          | Tandarra-Calivil Channel                     | 439                        | 7 9   |
| 2173 | Wm. McKay                      | Tandarra-Calivil Channel                     | 1,332                      | 17 0  |
| 2174 | R. Dobbie                      | Tandarra-Calivil Channel                     | 618                        | 19 6  |
| 2175 | F. F. Heil                     | Tandarra-Calivil Channel                     | 583                        | 10 5  |
| 2176 | Wm. Hird                       | Tandarra-Calivil Channel                     | 637                        | 16 9  |
| 2177 | Australian Wood Pipe Co.       | Wood Stave Pipes, Mornington Peninsula       | 7,306                      | 0 0   |
| 2178 | M. Cairns                      | Firewood, Merbein                            | 1,201                      | 4 0   |
| 2179 | Irwin Storer                   | Firewood, Merbein                            | 993                        | 17 0  |
| 2180 | M. Mellington                  | Firewood, Merbein                            | 905                        | 8 0   |
| 2181 | F. Finteln & Sons              | Firewood, Merbein                            | 950                        | 0 0   |
| 2182 | A. J. Storer                   | Firewood, Merbein                            | 975                        | 0 0   |
| 2183 | J. McCaig                      | Firewood, Nyah                               | 225                        | 0 0   |
| 2184 | P. Mannix, senior              | Firewood, Nyah                               | 675                        | 0 0   |
| 2185 | B. Harris                      | Firewood, Nyah                               | 212                        | 10 5  |
| 2186 | Wm. Ball                       | Firewood, Nyah                               | 225                        | 2 11  |
| 2187 | Wm. Duffy                      | Firewood, Nyah                               | 900                        | 0 0   |
| 2188 | A. J. Bell                     | Firewood, Nyah                               | 450                        | 0 0   |
| 2189 | W. Russell                     | Firewood, Millewa                            | 844                        | 8 0   |
| 2190 | F. Sheer                       | Firewood, Millewa                            | 848                        | 8 0   |
| 2191 | D. Dorman                      | Firewood, Millewa                            | 655                        | 10 0  |
| 2192 | V. M. Hamence                  | Firewood, Millewa                            | 279                        | 9 0   |
| 2193 | A. W. Hamence                  | Firewood, Millewa                            | 237                        | 3 0   |
| 2194 | Bornholm & Bradey              | Firewood, Millewa                            | 626                        | 10 0  |
| 2195 | N. Lawn                        | Firewood, Millewa                            | 225                        | 0 0   |
| 2196 | S. T. Sandwith                 | Firewood, Tresco                             | 165                        | 0 0   |
| 2197 | H. A. Fogarty                  | Firewood, Tresco                             | 357                        | 10 0  |
| 2198 | P. Mannix, Junior              | Firewood, Tresco                             | 137                        | 10 0  |
| 2199 | W. Russell                     | Firewood, Merbein                            | 684                        | 9 0   |
| 2200 | C. Felshaw                     | Derrick Boat, River Murray Works             | 2,585                      | 3 0   |
| 2201 | H. E. Ward                     | Firewood, Merbein                            | 697                        | 16 3  |
| 2202 | Mooney & Abrahams              | East Goulburn Main Channel Extension         | 813                        | 9 0   |
| 2203 | J. A. Rippen                   | East Goulburn Main Channel Extension         | 649                        | 4 2   |
| 2204 | J. J. Dedman                   | East Goulburn Main Channel Extension         | 846                        | 13 10 |
| 2205 | J. F. Considine                | East Goulburn Main Channel Extension         | 798                        | 14 0  |
| 2206 | Murray, Radcliffe & Beasley    | East Goulburn Main Channel Extension         | 651                        | 7 2   |
| 2207 | Murray, Radcliffe & Beasley    | East Goulburn Main Channel Extension         | 613                        | 5 2   |
| 2208 | T. Perkins                     | East Goulburn Main Channel Extension         | 755                        | 15 5  |
| 2209 | T. Perkins                     | East Goulburn Main Channel Extension         | 683                        | 10 0  |
| 2210 | J. J. O'Halloran               | Firewood, Merbein                            | 1,527                      | 5 10  |
| 2211 | Kandos Cement Co.              | 30,000 bags Cement                           | 7,625                      | 0 0   |
| 2212 | James Collins                  | Deakin Main Drainage Channel                 | 383                        | 15 0  |
| 2213 | James Collins                  | Deakin Main Drainage Channel                 | 513                        | 0 0   |
| 2214 | G. Morris                      | Firewood, Millewa                            | 876                        | 6 3   |
| 2215 | Australian Portland Cement Co. | 90,000 bags Cement                           | 24,750                     | 0 0   |
| 2216 | H. C. Young                    | Erection Buildings, Koondrook                | 200                        | 0 0   |
| 2217 | G. H. Dunlop                   | Drag Line Excavator, Kooweerup               | 2,299                      | 10 0  |
| 2218 | W. J. Pearse                   | Deakin Main Drainage Channel                 | 1,365                      | 13 0  |
|      |                                | Carried forward                              | 158,743                    | 5 7   |

## CONTRACTS—continued.

STATEMENT OF CONTRACTS ENTERED INTO DURING THE YEAR ENDED 30TH JUNE, 1925—continued.

| No.  | Name of Contractor.                                | Work or Supply.                                       | Amount<br>(Loan and Vote). |    |    |
|------|--|---|----------------------------|----|----|
|      |  |   | £                          | s. | d. |
|      |  | Brought forward .. .. .                               | 158,743                    | 5  | 7  |
| 2219 | Gibbs Bright & Co. .. .. .                         | Ironbark Timber, River Murray Works .. .. .           | 1,431                      | 12 | 3  |
| 2220 | Perry Engineering Co. .. .. .                      | Steam Locomotive, Hume Reservoir .. .. .              | 2,205                      | 0  | 0  |
| 2221 | E. E. Price .. .. .                                | Alterations to Buildings, Red Cliffs .. .. .          | 275                        | 0  | 0  |
| 2222 | Malcolm Moore Pty. Ltd. .. .. .                    | Belt Conveyor Machinery, Sugarloaf Reservoir .. .. .  | 304                        | 7  | 6  |
| 2223 | Alfred T. Harman .. .. .                           | Drag Line Excavator, Waranga Western Channel .. .. .  | 4,287                      | 10 | 0  |
| 2224 | Walsh & Board .. .. .                              | Laibert Earthen Storage Tanks .. .. .                 | 696                        | 10 | 0  |
| 2225 | G. Campara .. .. .                                 | Deakin Main Drainage Channel .. .. .                  | 583                        | 3  | 11 |
| 2226 | G. I. Tune .. .. .                                 | Erection Residence, Tatura .. .. .                    | 850                        | 0  | 0  |
| 2227 | A. Puls .. .. .                                    | Deakin Main Drainage Channel .. .. .                  | 576                        | 19 | 6  |
| 2228 | Australian Cement Ltd. .. .. .                     | 90,000 bags Cement .. .. .                            | 24,000                     | 0  | 0  |
| 2229 | Francis Flottmann .. .. .                          | Deakin Main Drainage Channel .. .. .                  | 903                        | 17 | 1  |
| 2230 | Benjamin Lewis .. .. .                             | Erection Buildings, Colbinabbin .. .. .               | 58                         | 0  | 0  |
| 2231 | H. Mitchell .. .. .                                | Erection Buildings, Rodney .. .. .                    | 225                        | 0  | 0  |
| 2232 | Colin Cameron .. .. .                              | Deakin Main Drainage Channel .. .. .                  | 706                        | 5  | 8  |
| 2233 | G. Cooke .. .. .                                   | Tandarra-Calivil Channel .. .. .                      | 937                        | 18 | 4  |
| 2234 | H. Walker .. .. .                                  | Telephone Line, Boort .. .. .                         | 219                        | 0  | 0  |
| 2235 | Murray, Radcliffe & Beasley .. .. .                | Tandarra-Calivil Channel .. .. .                      | 1,308                      | 17 | 0  |
| 2236 | J. C. McKinnon .. .. .                             | Tandarra-Calivil Channel .. .. .                      | 823                        | 11 | 7  |
| 2237 | C. Tucknott .. .. .                                | Tandarra-Calivil Channel .. .. .                      | 899                        | 4  | 2  |
| 2238 | Murray, Radcliffe & Beasley .. .. .                | Tandarra-Calivil Channel .. .. .                      | 898                        | 9  | 0  |
| 2239 | Murray, Radcliffe & Beasley .. .. .                | Tandarra-Calivil Channel .. .. .                      | 864                        | 19 | 10 |
| 2240 | W. McKay .. .. .                                   | Tandarra-Calivil Channel .. .. .                      | 792                        | 10 | 0  |
| 2241 | W. McKay .. .. .                                   | Tandarra-Calivil Channel .. .. .                      | 848                        | 10 | 10 |
| 2242 | Crossle & Scott Pty. Ltd. .. .. .                  | Centrifugal Pumps, Millewa .. .. .                    | 2,016                      | 0  | 0  |
| 2243 | W. C. Baker .. .. .                                | Earthen Storage Reservoir, Charlton .. .. .           | 2,945                      | 4  | 2  |
| 2244 | L. Camm .. .. .                                    | Deakin Main Drainage Channel .. .. .                  | 397                        | 9  | 2  |
| 2245 | F. Thomas .. .. .                                  | Deakin Main Drainage Channel .. .. .                  | 880                        | 19 | 0  |
| 2246 | A. Palmer & Co. .. .. .                            | Hardwood, Maffra .. .. .                              | 2,174                      | 13 | 6  |
| 2247 | S. Fitch .. .. .                                   | Deakin Main Drainage Channel .. .. .                  | 1,213                      | 1  | 6  |
| 2248 | Australian Cement Ltd. .. .. .                     | 90,000 bags Cement .. .. .                            | 23,437                     | 10 | 0  |
| 2249 | Armstrong-Holland Ltd. .. .. .                     | Tower Hoisting Equipment, Sugarloaf Reservoir .. .. . | 241                        | 15 | 0  |
| 2250 | T. H. Holden .. .. .                               | Deakin Main Drainage Channel .. .. .                  | 432                        | 5  | 0  |
| 2251 | G. L. McCrohan .. .. .                             | East Goulburn Main Channel Extension .. .. .          | 437                        | 12 | 8  |
| 2252 | Moonoy & Abrahams .. .. .                          | East Goulburn Main Channel Extension .. .. .          | 739                        | 14 | 11 |
| 2253 | S. A. Stevens .. .. .                              | East Goulburn Main Channel Extension .. .. .          | 722                        | 5  | 4  |
| 2254 | G. Cooke .. .. .                                   | East Goulburn Main Channel Extension .. .. .          | 693                        | 10 | 7  |
| 2255 | Murray, Radcliffe & Beasley .. .. .                | East Goulburn Main Channel Extension .. .. .          | 716                        | 8  | 0  |
|      | Sundry small Contracts at Piece-work Rates .. .. . | .. .. .   | 160,039                    | 0  | 0  |
|      |  | Total .. .. .   | £400,527                   | 1  | 1  |

## DIRECT LABOUR.

The construction of the larger works is still being mainly carried out by "Direct Labour." The principal payments during the year were on the following works:—

| Works.  | Amount.  |
|---|----------|
| River Murray Storages (Hume Reservoir, Torrumbarry and Mildura Locks) .. .. . | £119,704 |
| Maffra District (Glenmaggie Reservoir) .. .. .                                | 112,208  |
| Wimmera Mallee System .. .. .   | 88,503   |
| Goulburn Main and Distributary Channels .. .. .                               | 76,345   |
| Sugarloaf Reservoir .. .. .   | 64,905   |
| Waranga Reservoir .. .. .   | 52,390   |
| Nyah, Rodney, Shepparton, Merbein, and Cohuna Districts .. .. .               | 45,844   |
| Red Cliffs District .. .. .   | 41,088   |
| Koowearup, Cardinia, and other Flood Protection Districts .. .. .             | 35,072   |
| Kerang, Kerang Lakes, Koondrook, Boort, and Tragowel Plains Districts .. .. . | 26,924   |
| Mallee Tanks, Clearing Roads (Mallee) .. .. .                                 | 25,449   |
| Mornington Peninsula Waterworks District .. .. .                              | 21,126   |
| Torrumbarry Districts and Swan Hill District .. .. .                          | 18,885   |
| Millewa Waterworks District .. .. .   | 12,896   |
| Coliban and Other Districts .. .. .   | 12,741   |
| Bacchus Marsh and Werribee Districts .. .. .                                  | 7,270    |
| Total .. .. .   | £761,350 |

## WORKS CARRIED ON OR COMPLETED DURING THE YEAR ENDED 30TH JUNE, 1925.

### COLIBAN DISTRICT.

An addition has been made to the bywash of the Upper Coliban Reservoir which will raise the full supply level 4 feet and increase the capacity of the storage by about 3,000 acre feet. It consists of 44 Grigotti syphons each 6 feet wide and 2 ft. 3 in. deep, together with 18 drop-bar openings each 5 feet wide and 4 feet deep. The discharging capacity of the syphons alone is calculated to be not less than 8,000 cubic feet, or 50,000 gallons, per second, which is in excess of any known flood. The Valve Tower has been increased in height to correspond with the raised full-supply level of the Reservoir.

Steady progress has been made with the work of increasing the capacity of the Main Channel. Some important timber flumes have been replaced by open cuttings and concrete structures, capable of carrying 40 millions of gallons per diem. These new works are now free from risk of injury by fire.

At Sutton Grange, where the channel passes through rather open granite country, about 20 chains of concrete ground fluming have been constructed, parallel with, and to take the place of, the existing channel. This method has the advantage that the work can be carried on whilst the channel is in use; whereas lining the channel itself can be done only during the brief periods each year when the flow can be stopped.

At Castlemaine, a new Service Basin has been constructed and brought into operation. The Basin is 10 feet deep and has a capacity of about 750,000 gallons, supply being obtained from the Poverty Gully Race. The Basin is connected to the town reticulation by a 12 inch diameter main. The upper part of this main is of concrete pipes, the middle part is of wood pipe, and the lowest section, where the head is over 300 feet, is of cast iron. These works, coupled with very substantial remodelling of the reticulation, have greatly improved the supply to the town.

At Bendigo a scheme has been prepared for improvements to the works of supply in the vicinity of Quarry Hill and the higher parts of the city so as to provide for the introduction of sewerage. Many minor improvements throughout the district have been carried out. New quarters have been built for the water bailiff at Crusoe.

### IRRIGATION AND WATER SUPPLY DISTRICTS.

#### RODNEY DISTRICT.

The area under irrigation during the last year was 47,237 acres, including over 25,000 acres of lucerne, as against 41,000 and 24,000 respectively irrigated during the previous year.

The work of replacing the McKenzie Channel by a larger channel has been completed, and the enlargement of the Wilson Channel has been continued almost to the head of the former. Work on the new Waranga-Kyabram Channel has also been proceeding satisfactorily, and it is expected that a further length of about 5 miles will be ready for use during the approaching irrigation season.

About 4 miles of channels have been constructed to supply several large holdings which have been purchased and subdivided into blocks for closer settlement. On many of these, suitable houses for settlers have been erected.

Many structures, such as outlets, checks, and syphons have been built; several miles of existing channels have been remodelled; and replacement of old timber bridges with concrete structures has been continued where necessary.

Residences for four water bailiffs have been erected during the past year.

#### DISTRICTS ADMINISTERED FROM SHEPPARTON CENTRE.

In Shepparton District, the channel system supplying the Closer Settlement area known as Thomas's and Dennis's Estates was completed, and the construction of channels to supply Harper's Closer Settlement Estates was undertaken. These operations involved the construction of 13 miles of channels, which will also be utilized eventually to serve other lands of the East Goulburn Extension Scheme.

A comprehensive surface drainage scheme for Thomas's and Dennis's Estates has been adopted, and the work, which involves the construction of 6 miles of drains, is now in progress.

In the Shepparton area the banks of  $1\frac{1}{2}$  miles of channel were raised, and all necessary repairs and maintenance works carried out.

In the new South Shepparton District all works are complete, and water was supplied during portion of last season. The land-owners in this district are following the example set in the adjoining Shepparton area by devoting a fair portion of their farm lands to intense culture crops, such as lucerne and other fodders.

The Main Eastern Channel from the Goulburn Weir is being extended in a northerly direction. Nine miles of the earthwork are completed, and a further length of 6 miles is in progress. The completion of this portion will enable water to be supplied to an area of some 9,000 acres at Katandra purchased by the Commission for closer settlement.

The offtake regulator, a 12 foot diameter syphon under O'Keefe's Creek, four bridges, and minor structures, all of reinforced concrete, have been completed.

#### SWAN HILL DISTRICT.

The boundary of the Swan Hill District was extended to include a further area of 13,347 acres, making the total area in the district 35,267 acres. The greater portion of the newly included area was already supplied with water from the Boga Main Channel, so that very little additional channelling was necessary. About 6 miles of channel were lined with cement concrete, and 4 miles of new supply channel and  $2\frac{1}{2}$  miles of drainage channel were constructed. Two and a half miles of old channel were cleaned out. Many new structures were built in various parts of the district, including 12 culverts, 5 checks, and 49 outlets.

Water is now being diverted at the Torrumbarry Weir and sent by the Pyramid Creek and River Loddon to this district, so that a gravitation supply is assured throughout the year. The old pumping plant is, for the present, being held in reserve.

#### DISTRICTS ADMINISTERED FROM KERANG CENTRE.

As a result of the exceptionally dry winter of 1924, there was an early demand for irrigation water. In the Kerang section, irrigation commenced as early as July, the water being drawn from Kow Swamp Storage until the River Murray, then at a low level, was headed up by the Torrumbarry Weir, which gave a full stream to all districts commanded. At the beginning of September, however, heavy rain caused a temporary cessation of irrigation operations. Although a comparatively mild summer was experienced, irrigation was extensively practised.

In the Kerang District a new reinforced concrete syphon, 45 inches in diameter and 210 feet long, was constructed under the Wandella Creek at Dingwall on No. 2 Main Channel for the purpose of conveying a full irrigation supply to lands on the west and to the areas recently added to the district. In addition to the construction of several syphons, concrete pipe checks, and culverts to replace worn-out timber structures, several spur channels to serve new areas were completed. The flume over the Nine Mile Creek was thoroughly overhauled, new stringers were bolted in position where required, and the red-gum timber floor relaid and caulked. The principal portions of No. 10 and No. 11 Macorna North distributary channels, the No. 6 main, and sundry spur channels, were cleaned out.

In the Koondrook District the Northern Main Channel, No. 14, No. 14A, and No. 14B spur channels therefrom, and the Centre Main Channel, were cleared of silt and weeds by scoops specially designed to do this work while channels are running. The extensive channel system designed to serve closer settlement areas and other lands between Myall and Gonn Crossing was in full operation during the irrigation season. Several new spur channels, together with regulating works, were constructed at Gonn Crossing. At Tye's Closer Settlement Estate the complete system of drainage works described in the last Annual Report was in full operation, and proved entirely satisfactory.

This irrigation system has been extended to serve an area of approximately 6,000 acres, situated between the Murray and Loddon Rivers, in the parish of Benjeroop. The first section of the extension works, comprising  $7\frac{1}{2}$  miles of channels, together with reinforced concrete bridges, regulating works, and syphons, has already been completed in readiness for the coming irrigation season. Many soldier settlers and others in this area who previously, at great cost, pumped their irrigation supplies from either the Murray or Loddon River, will be in a position to increase the areas under cultivation now that a gravitation supply is assured. The channels of this system pass through an estate comprising 660 acres, known as Flowerday's, which was recently acquired by the Commission for closer settlement purposes, and which is shortly to be subdivided into allotments suitable for citriculture and general farming. A 3 inch contour plan of the property was prepared, and the distributary channel system surveyed and pegged out ready for construction which is now being carried out.

Good progress was made by the settlers on the Murrabit Closer Settlement Estates during the past year. In addition to the large area previously under cultivation, upwards of 300 acres of lucerne were established.

Forty houses have been built by the Commission for the settlers. Two iron panelled houses with offices attached were also erected at the new Murrabit township for the Closer Settlement Supervisor and the Water Bailiff.

The extensive irrigation works to serve the proposed Third Lake Irrigation District, comprising some 13,000 acres, situated between Third Lake and Benjeroop township, were practically completed; and very early in the year the main channel was in full operation delivering irrigation supplies. The main channel of the system takes off from Third Lake Storage, and proceeds in a northerly direction for a distance of  $12\frac{1}{4}$  miles to within a short distance of Benjeroop township. The aggregate length of the main and distributary channels is  $17\frac{1}{2}$  miles. The structures are of reinforced concrete, and include two escapes for the safe working of the system. At the offtake of spur channels, specially designed head checks to prevent leakage have been installed.

At Kangaroo Lake, a section of the main levee was raised and widened and the stone protective works extended. Over the seepage drain in the vicinity two full waterway culverts were built to give access to the levee works and windmill pumping plant.

During the irrigation season, the weir across the Little Murray River at Benjeroop was in operation heading up the water sent down from the Torrumbarry Weir, via the Pyramid Creek and River Loddon for the Swan Hill District, when the River Murray at Benjeroop dropped below the minimum draw-off level.

Between the River Loddon and the western boundary of the Gannawarra District an area of country 8,400 acres in extent is being reticulated by a channel system, the main channel of which takes off from the Pyramid Creek upstream from the Kerang Weir. The works which were commenced in October last are already well advanced; and portion of the main channel, together with Spur No. 1, was in operation carrying irrigation supplies in March last. The aggregate length of the main and distributary channels is 21 miles. The syphons, bridges, and regulating structures are of reinforced concrete. This extension will be added to Gannawarra District, and the Commission hopes to have the whole of the system completed in readiness for the coming irrigation season.

#### DISTRICTS ADMINISTERED FROM COHUNA CENTRE.

In the Cohuna District, Leitchs Creek Main Drain has been cleared of silt for its entire length of 16 miles, and has been regraded and widened for a length of 3 miles. The extra outfall for this drain was continued and all necessary structures were put in on the length already constructed. A 3 foot pipe culvert was put in under the channel at the outfall end of the Wee Wee Rup Main Drain to supplement the 24 inch pipe originally placed. Works to do away with the Barr Creek as a means of conveyance have been commenced, and a syphon 100 feet in length and 6 ft. 6 in. internal diameter has been constructed. Eight miles of subsidiary drains with all necessary structures thereon were also constructed; and the remodelling of channels and other structures is being carried out. The very dry weather in the early part of winter made a watering as early as July necessary, and there was a good demand for water which was supplied from the Torrumbarry system. This continued to give satisfaction both then and during the regular irrigation season. Autumn rains, however, obviated any necessity to prolong irrigation beyond the end of the irrigation season.

Works for the supply of the proposed Leitchville Irrigation District were proceeded with. A new regulator was constructed in the Main Taylors Creek-Cohuna Channel. Ten regulators and 26 bridges and crossings were built and 16 miles of supply channel excavated. It was possible to water, by gravitation, about half the area last summer.

On Gunbower Island, at the junction of the Gunbower and the Yarran Creeks, a concrete regulator was constructed for the purpose of controlling supply to that portion of the Gunbower State Forest between Cohuna and Koondrook.

In the Cohuna Urban District a by-pass to allow of pumping direct into the mains in times of emergency was put in at the supply tower. Eight chains of new main were laid during the year.

#### DISTRICTS ADMINISTERED FROM LODDON CENTRE.

Owing to the dry winter, watering commenced in July, earlier than usual, and continued till the rains in August; after which scattered rains kept the demand unusually low for the first few months of the irrigation season, although later dry conditions brought the demand up to a maximum. The requirements of the irrigators were, however, met throughout the season.

In Tragowel Plains District, the principal work in progress is the construction of channels to supply the soldier settler's blocks on Gash's Estate and other adjacent lands along the Bullock Creek. When completed, these channels will command a new area of about 12,000 acres, which

will ultimately be brought within the district. To serve these lands, about 22 miles of channels are being constructed, together with the necessary road and occupation culverts, checks and regulators, and syphons, one of which, that under Bullock Creek, is about 6 chains long.

About 15 miles of the earthwork of the channels are now completed ; six 4 ft. x 5 ft. culverts, several checks, and a 42 ft. x 4 ft. syphon have been constructed, as well as meter outlets, gates, and other minor works. In connexion with the supply to these channels, the remodelling of the No. 2 distributary channel is in hand.

The work of replacing the old timber structures in Tragowel Plains District is proceeding satisfactorily. A number of wooden bridges have been replaced with concrete pipe culverts, and various structures repaired, including the No. 2 Main head sluice, to which a concrete apron has been added to prevent scour. About 3 miles of old channel have been remodelled, and a total of about 50 chains of new supply channels constructed. Eight new stops, fourteen new meters, and four new culverts have been installed ; at several points pipe syphons have been put in channels to avoid scouring of the banks by flood water ; and all necessary works of repair and maintenance have been carried out.

In Boort District the supply has been greatly augmented by the extension of the Waranga Western Main Channel to the River Loddon. During the last season, this district was supplied with Goulburn water from December till May, and thus received a much better service than heretofore. In view of this increased supply, and the proposal to bring this district under the compulsory irrigation system, steps are being taken to overhaul the channels and structures, and replace those of the latter which are no longer satisfactory. Several old bridges have been replaced with pipe culverts ; ten new stops and eight new culverts have been constructed, and several pipe syphons installed to prevent scour by flood water. A number of old structures has been repaired ; and the work of repairing or replacing these will be continued in the coming year. About 2 miles of private channel were taken over near Lake Yando, and remodelled so as to connect two of the Commission's channels for the purpose of improving the supply.

A channel about 4 miles long, to supply about 1,400 acres between the Sheepwash Creek and the Loddon, near Appin, is being constructed, and, together with the necessary structures, is nearing completion. Four bridges, five concrete stops, and a syphon, 70 feet x 2 feet, have been built. A combined stop, escape, and 18-ft. x 3-ft. syphon is under construction at a point in the 12 Mile Channel where floods had endangered the banks.

In Dingee District general maintenance work has been carried out. The Dingee township supply scheme, consisting of a 2,000 cubic yard storage dam, a windmill, tanks and stand, and reticulation has been completed.

#### DISTRICTS ADMINISTERED FROM ROCHESTER CENTRE.

The important Drainage Works which were in hand last year have been continued. The earthworks of the Bamawm Drainage Channel No. 1 having been completed, and the necessary road and occupation crossings built, the total length of 7 miles is now operating successfully. This channel gives an outfall for sub-surface drainage to an average depth of 3 ft. 6 in. below the lowest portions of the blocks served, and provision has been made to deepen the drain 2 feet further if necessary. Bamawm Drainage Channel No. 2 is also being constructed ; the earthworks for 2 miles have been completed, and contracts for the remaining  $4\frac{1}{2}$  miles are being entered into.

The first stage of the Nanneella Drainage Channel ( $5\frac{1}{2}$  miles in length) is in operation, and drainage is assured from McCurrys Swamp onwards. Contractors are now working on the second stage, from McCurrys Swamp to the Waranga Western Main Channel. The completion of this drainage channel will result in the rapid run off of flood waters which frequently flow across the Nanneella District as the result of freshets in the Campaspe River. These drainage works and others being carried out will have a most beneficial and far-reaching effect in the district.

The Timmering Channel, which serves some 2,200 acres of good irrigation land, was brought into operation for the first time, and has resulted in some exceptionally fine stands of lucerne.

A commencement has been made with the Restdown Channel, which is  $7\frac{1}{2}$  miles in length, and the earthworks for  $3\frac{3}{4}$  miles have been completed.

Seventy-seven chains of channels were lined with concrete for the prevention of seepage.

The regulator at 40m. 20c. in the Waranga Western Channel was completed, and has already proved useful in preventing the backing of flood waters up the channel.

A new area of some 18,000 acres to the west and north of the existing district is being reticulated with a new extensive channel system, which will operate during the coming irrigation season. The channels to supply this area are about 33 miles in length. The earthworks are complete ; while the concrete structures, comprising road and occupation crossings, checks and drops, meter outlets, drainage subways, and one railway crossing, are also finished for some 16



miles. It is expected that the structures on the remainder of the channels will be built in time to give a supply to all parts of this area by the commencement of the ensuing watering season. Surveys covering 80 miles of further channel extensions have been in progress for some time, and the construction of these channels will be pushed on during the ensuing twelve months.

In the Campaspe District the supply to the Weir was better than usual, and watering was, therefore, continued into April instead of cutting off in December as is often the case.

The replacing of portions of the decking of the Weir with concrete having proved successful, a further area was so treated. By gradually extending this concrete decking the loss of rock fill should be reduced to a minimum and maintenance costs thus lessened.

A concrete occupation crossing to replace an old timber structure was built, and necessary maintenance work was carried out.

That portion of Echuca North District administered from Rochester Centre, which has passed through its third watering season, is now becoming established. Some good stands of lucerne can be seen, and some of the larger holdings are being subdivided. With the land held in smaller areas, and so receiving more attention, future progress should be more rapid. Work was confined to water delivery and maintenance.

During the year the township of Lockington was reticulated with 8,500 feet of pipes, the supply being raised to four 5,000 gallon tanks on a steel stand, by means of a windmill and pump.

#### DISTRICTS ADMINISTERED FROM TONGALA CENTRE.

In the Tongala District, the channel system has been extended by the construction of 7 miles of new channels to reticulate additional land subdivided for closer settlement purposes. One mile of remodelling work has been carried out, and all structures completed in the channels of supply to lands brought into the district last year.

The Tongala Main Channel has been extended to connect with the Echuca North system so that an outfall could be provided. This gave considerable relief to the channels during rain periods throughout the irrigation season. Forty chains of the main channel were pug-trenched to cope with seepage; and extensive work was carried out during the repair period in the facing of the banks which were eroded by wave action.

Five blocks, with areas from 77 acres to 158 acres, have been made available for closer settlement, and contracts have been let for the erection of four new houses for settlers. There are now 24 overseas settlers in this district, and their general progress has been satisfactory. The improvements erected by these settlers are substantial and permanent; and there has been great activity in the preparation of lands and sowing of lucerne.

In the Stanhope District 40 chains of channel have been lined with concrete, and a syphon 9 chains in length has been constructed over the main depression to command additional land. Channel extensions have been made to provide increased supplies to settlers. Pug-trenching of 80 chains of spur channels has been carried out through the sandy country to deal with seepage. The Stanhope Urban Division has been proclaimed, and the necessary reticulation works carried out for the supply of water under pressure. The water is obtained from the channel by means of a pump driven by a 14 foot windmill to a storage consisting of four 5,000 gallon tanks erected on a steel stand 30 feet high.

In the portion of Echuca North District administered from Tongala, the remodelling of the main supply channel has been completed, and a 40 foot length of flood syphon constructed. Repairs have been effected to the outfall channel, which was damaged by scour.

In the Deakin District, six wooden structures beyond repair have been replaced by concrete ones; 7 miles of channels have been cleaned of silt and weeds; and other necessary repairs and maintenance works have been carried out.

An area of 1,200 acres in this district has been purchased for closer settlement purposes and subdivided into thirteen blocks, with areas from 78 acres to 145 acres. The channels to supply these have been surveyed, and are now being constructed. Contracts have been let for the erection of nine houses for settlers on the subdivision, which will now be added to Tongala Irrigation District.

The construction of the Main Drainage Channel proceeded throughout the year. Ten miles of the excavation have been completed at the Stanhope end, and 11½ miles at the Echuca end. Owing to the low-lying nature of the land through which the channel passes, it was not possible to make a start with the structures until the outfall end was completed, but the work is now sufficiently advanced to permit of the structures being proceeded with.

## BACCHUS MARSH AND WERRIBEE DISTRICTS.

In Bacchus Marsh District the pipe crossing on the Lerderderg road was enlarged and reconstructed, and the sides of the Lerderderg East concrete channel raised 6 inches for a distance of 20 chains to increase the carrying capacity to the area known as Hopetoun. Fifty-five chains of the Darley Channel have been scooped out to an average depth of 12 inches. Four concrete measuring wheel boxes have been constructed on the Lerderderg East Supply Channel.

A new concrete channel was constructed from the Werribee River main syphon at Maddingly for a distance of 32 chains towards Lyles Creek to supply an additional area of 62 acres known as Underbank Estate. This work includes 3 chains of 15 inch diameter pipe syphon over O'Hagans Gully, 11 chains of concrete box channel, 18 chains of slope concrete channel lining, two concrete measuring boxes, and five storm water shoots. Twenty-five chains of storm drains have also been constructed.

Four chains of the Main Supply Channel have been enlarged and lined with concrete. Repairs were made to Sheas flume; a new concrete measuring wheel outlet was constructed, and 3 miles of storm-water drains were cleaned out and repaired.

To make provision for the erection of a new concrete bridge over the Werribee River at Maddingly by the Country Roads Board, two 24 inch diameter pipe syphons were constructed in the Commission's channels and four concrete wells were installed.

To prevent the erosion of banks on the eastern slopes of the Pykes Creek Reservoir, 11 chains of stone pitching were carried out. On the western slopes of the main embankment, 20 acres of the Commission's reserve were planted with *Pinus Insignis*. These trees are now in a healthy condition and making excellent growth. An additional area of 20 acres has been fenced with wire netting, cleared of all timber, and prepared for planting trees.

Owing to the erosion of banks of the Werribee River at Mr. McGrath's and the Lerderderg River at Mr. Ramsay's, the Commission's concrete channels were undermined, and a deviation had to be made in each case and the channel reconstructed. The supply channel to all lands on the western side of the Lerderderg River at Mr. Heagney's was concrete lined for a distance of 20 chains, and fifteen outlets and checks were built. The protective works on the Werribee River near Mr. McGrath's property are now completed, including twenty timber and stone-cribs, the cutting to slope of the river bank for 5 chains and the provision of stone beaching where needed.

On the Werribee River, opposite Mr. Grant's property, four timber and stone cribs were constructed and river banks sloped down to prevent erosion. All the Commission's protective works on the Lerderderg and Werribee Rivers have withstood fairly high floods during the year, and are in good condition.

An additional trial survey has been made for a possible channel line, starting in the Werribee Gorge and continuing to a distance of 5 miles 40 chains, in connexion with a scheme suggested for the supply of an additional area of 1,000 acres not commanded by the existing works.

In the Bacchus Marsh Urban Division the Grantbank Subdivision was reticulated. This includes 1,715 feet of 4 inch diameter wooden pipe main laid in William and Patterson streets and 320 feet of 2 inch main laid in Sutherland-street to connect with the existing main running along the Gisborne-road and the Darley Channel. At the offtake of the Darley Channel two concrete wells were constructed, including all the necessary gates, valves, and screens. The 5 inch cast-iron main in Grant-street and the 4 inch main in Main-street were scraped and cleaned for a distance of 98 chains.

In the Werribee Irrigation District, extensions of the drainage scheme have been made in the south-eastern portion of the district and additional works carried out on existing irrigation and drainage channels. New drainage works, comprising 80 chains of subsoil drain varying in depth from 3 feet to 7 feet, were carried out, and the surface drainage scheme was extended a further distance of 47 chains to serve settlers on Woods-road and portion of Diggers-road. Forty chains of the existing drainage channel at Mr. Silk's was further deepened, and 200 chains of drainage channels in various parts of the district were cleaned. Twenty-one chains of drains on heavy slopes were lined with concrete.

Thirty-three chains of irrigation channels were lined with concrete and the sides of 20 chains of concrete box section on the main spur channel at Mr. Finch's were raised an extra height of 9 inches to enable a larger supply to be delivered to Section G. The construction of distributary channels on Section J (the area of 168 acres reserved for township irrigable allotments) was completed by an additional 35 chains of box section channel.

In the Werribee Urban District the reticulation mains were extended during the year to several new streets. Lengths of 56 chains of new 2 inch G.I. main and 19 chains of 4 inch wood pipe main were laid; and 28 chains of 2 inch G.I. main were replaced by 4 inch wood pipe to give better pressures on the outskirts of the town. The settling basin at the Water Tower was cleaned during the year, and necessary works of repairs and maintenance were carried out.

In the Werribee Waterworks District further works of remodelling and cleaning channels were carried out over a total length of 1 mile 70 chains, and 80 chains of new channel were constructed to supply the new area embraced by the Cheetham Saltworks.

#### MERBEIN DISTRICT.

Channel lining works have been carried out and 130 chains of remodelling and lining with cement concrete have been completed. Twenty-three new channel offtakes have been constructed and a number of old timber culverts have been replaced by concrete structures. Bridges and culverts along the Mena-road have been widened from 16 feet to 24 feet. In the Birdwood Soldier Settlement the outfall drain described in the last Annual Report has been completed.

In the Merbein Urban District extensions to the reticulation totalling 21 chains of pipe line have been laid.

#### RED CLIFFS DISTRICT.

During the year timber-clearing operations were practically completed, 100 acres having been cleared since last report, bringing the total area cleared to 15,500 acres.

The total number of blocks made available in the settlement is 704, and of this number no less than 684 are at present occupied.

The total length of channels constructed on the settlement is now 123½ miles, involving 665,000 cubic yards of earthwork. A total length of 95¼ miles of channel has been lined with cement concrete. Over 37 miles of channel, representing a superficial area of 168,500 square yards of lining, have been constructed since last report. As a result of the lining work completed, 614 blocks, or 86 per cent. of the total in the settlement, are now protected from seepage from channels. This work is still proceeding. One hundred and forty temporary wooden bridges over channels have been replaced by permanent concrete structures, and numerous outlets and regulators have been constructed during the year.

Practically the whole area allotted has been planted; and water has been supplied to all blocks. The total area now planted to vines is 8,000 acres and to citrus trees 600 acres. There is also a small area of miscellaneous varieties of deciduous trees. The yield of the dried fruit crop for the year, although lighter than estimated, reached about 2,500 tons. The 1926 yield is estimated at between 4,000 and 5,000 tons of dried fruit, provided a normal season is experienced. Some settlers are profitably engaged in side lines such as fresh fruit, green peas, and tomato growing.

Activity has been shown by the fruit-packing companies during the year. The Red Cliffs Co-operative Company, consisting entirely of growers, considerably enlarged and improved its factory to cope with larger yields. A new factory was also established by a proprietary company, and processed about 600 tons of fruit.

The Commission arranged for the bulk purchase and the distribution of large quantities of settlers' requirements, including the following:—Timber and other material for 400 drying racks, 120 tons galvanized iron, 40,000 dip tins, 1,000 bolts of hessian, and 7,000 sweat boxes. Considerable saving to the settlers was made by this means, and in the one item of racks alone £2,500 was saved on the local ruling prices.

Road improvement works have been carried out throughout the settlement by the Mildura Shire Council, the cost of these works being shared equally by the Public Works Department, the Shire Council, and the Commission.

Red Cliffs Township has shown considerable development, many new buildings having been erected, the most important being a new brick post office and telephone exchange. The town supply scheme mentioned in last report is now completed, and the town is provided with a modern and efficient water supply. The provision of this supply enabled a volunteer fire brigade to be formed. Four tennis courts have been constructed by the townspeople on the Public Square, and trees have been planted.

A subdivision of workmen's home blocks adjacent to the township was made, and eighteen blocks allocated for this purpose. A small township subdivision was made in the north-west portion of the settlement, 3 miles from Red Cliffs township, for the convenience of the settlers in that area. The new township has been named Cardross. Shopping facilities and postal service have been made available for the township, also a bus service to Red Cliffs and Mildura has been established by the residents.

## NYAH DISTRICT.

In the Nyah District the lining of supply channels with cement concrete has been continued. Four and a half miles of channels were lined during the year, leaving less than 2 miles to complete the lining of the supply system throughout the settlement. The length of lined channels in this district is now 32½ miles.

Forty-five chains of drain have been constructed to provide an outlet for drainage waters to soldier settlers' blocks at Vinifera; and the work of deepening the main outlet drain at Tyntynder North has been continued, a length of 40 chains being completed during the year. In addition to these works, about 11 chains of 3 inch drain pipes have been replaced by a 6 inch reinforced concrete pipe line.

Returns from packing houses show an increased tonnage of dried fruit over returns for last year. To cope with this increase a new packing shed has been erected at Vinifera, and two existing sheds have been enlarged.

A new brick school has been erected at Vinifera Soldier Settlement by the Education Department, and is well attended.

## MYSTIC PARK DISTRICT.

During the year minor channel remodelling works have been carried out. In order to facilitate watering, a number of reinforced concrete channel regulators are being installed, and three are now in course of construction. Irrigation supplies to this district are now being delivered by gravitation through the Torrumbarry Weir distribution system.

## TRESKO DISTRICT.

The work of remodelling the drainage and channel systems in this district has been continued throughout the year. One hundred and fifty-nine chains of channel have been lined with cement concrete and 95 chains have been remodelled. There are now 5 miles 20 chains of lined channel in this district, and a further length of 2 miles 40 chains will be completed before the next irrigation season. Work now in hand will complete the lining of the second lift or Ridge Channel, and will thus considerably reduce seepage troubles on the lower lands. The larger channels throughout the system have been completed and only distributaries remain to be lined. Drains have been widened and deepened, and 5 miles 75 chains have been enlarged during the year, bringing the total length of drains completed to 12 miles 38 chains.

## MAFFRA DISTRICT IRRIGATION SCHEME.

During the year very satisfactory progress has been made with the carrying out of this most important scheme, the object of which is the irrigation of an ultimate area of at least 80,000 acres of valuable lands around Maffra, mostly rich river flats lying along the lower reaches of the Macalister, Avon, Thomson and Latrobe Rivers and quite adjacent to the Glenmaggie Storage on the Macalister River.

The average annual rainfall at Maffra, approximately the centre of this large area, is only 21 inches, much the same as that at the highly prosperous irrigation centres of Bacchus Marsh and Werribee, and, as the climate in the Maffra-Sale locality is exceptionally mild and genial, even better results than those obtained in the above districts should follow the application of water to this portion of East Gippsland.

The construction of the cyclopean concrete dam on the Macalister River below Glenmaggie, which when complete will create a storage of 150,000 acre-feet, has been so well advanced that three-fourths of the total concrete necessary has now been poured, so that not only is a diversion of the river possible, but a storage volume of at least 50,000 acre-feet will be available for the watering season in the ensuing summer.

The Northern Main Channel, commanding Newry and Boisdale flats, as well as the whole Maffra and Sale Districts, has been completed, and the reticulation of the Boisdale flats, with cement lined distributary channels, has been so well advanced that a full supply will be available for this rich area in the coming watering season. This service should give a very considerable impetus to all forms of intensive cultivation in the locality.

Special efforts have also been made to construct the main channels giving supply to Airly, Cobains and other estates in the vicinity of Sale, totalling over 6,000 acres purchased by the Commission for closer settlement purposes. These works are so well advanced that supply should be given at Sale by mid-summer. The Sale District is one of the oldest in the State, and as these channels will also be available to water other adjoining lands as desired, the area directly served by them should form a nucleus for the development of what must ultimately form one of the largest and soundest irrigation districts.

## PLAN OF MAFFRA DISTRICT IRRIGATION SCHEME.

A locality plan showing the outlines of the scheme with storage basin, main supply channel system and areas which can ultimately be served has been inserted in this Report. This sets out clearly the unique compactness of the scheme and the great material advantages which it possesses, on account of the strikingly close proximity of the areas to be served to the Glennaggie Storage, thus permitting of the most economical distribution of water, with a minimum of loss in transit.

### INVESTIGATION OF NEW IRRIGATION AND WATER SUPPLY PROPOSALS.

At the request of land-holders between Lake Tutchewop and the Little Murray River, in the vicinity of Fish Point, a scheme has been prepared for the supply of water for irrigation to this area. The proposed works consist of a main channel, supplied by gravitation from the north-west corner of Lake Tutchewop, and a system of distributary channels with necessary structures to serve an area of about 4,600 acres suitable for irrigation. Particulars of the scheme have been supplied to the land-holders for their consideration.

During the year a proposal for the supply of irrigation water by gravitation to the Piangil Flats was investigated at the request of land-holders. A trial survey was made for a main channel from the Boga Channel at Swan Hill to Piangil, but the investigations up to the present tended to show that the scheme was hardly practicable owing to the heavy cost. Investigations are, however, being continued.

Progress has been so satisfactory at Hume Reservoir that the States of New South Wales and Victoria are now co-operating in investigating the best point or points at which water to be stored in the new Reservoir could be diverted for irrigation.

At the request of land-owners south-west of Kow Swamp, a scheme to provide for the irrigation of some 9,000 acres is being investigated.

Investigations are also being made with a view of ascertaining the most feasible scheme for supplying domestic and stock water to an area of some 280 square miles at Normanville and adjoining localities.

Settlers in the new parishes of Annuello, Geera, Wemen, and Liparoo, whose lands are above the levels of the Wimmera-Mallee Gravitation Channel System, have requested that a domestic and stock supply be provided for these areas. Surveys are being carried out to enable such a scheme to be prepared.

As desired by land-holders in Wanurp, Mitiamo, Terriek East, Patho, and adjoining parishes, the Commission had surveys made and a scheme of works outlined to provide a supply of water for domestic and stock purposes for an area of about 260,000 acres to the north-west of Rochester Irrigation District. The scheme was submitted to the land-holders concerned, but they are not at present prepared to accept it on account of the cost involved.

## WATERWORKS DISTRICTS.

### CARWARP DISTRICT.

The work of enlarging the Carwarp East Branch Channel, involving some 28 miles of channel remodelling, has been pushed on, and 12½ miles have been completed during the year. Good progress has been made on the construction of the new Colignan and McKenzies Branch channels serving about 50 square miles of new country in the parishes of Carwarp and Colignan. Further surveys have been made, and lines have been laid down for channels serving new lands in the Parish of Nurnurnemal.

### CARWARP CENTRAL DISTRICT.

The special pumping works for the supply of the new Carwarp Central District, described in the last Annual Report, have been completed during the year, and the first watering was satisfactorily carried out.

### WIMMERA-MALLEE WATER SUPPLY.

The increased storage provided for this system in recent years has proved invaluable by enabling more rapid and economical distribution of water throughout the system. The aggregate volume that can now be stored is 152,350 acre-feet, which will be increased during the next year or two by another 60,000 acre-feet, making a total of 212,350 acre-feet, as against 69,000 acre-feet of a few years ago.

The whole of the districts comprising this Wimmera-Mallee Domestic and Stock Supply System, embracing over 11,000 square miles, received full supplies of water in rotation during the year, 4,950 miles of the Commission's main and branch channels being run. The conditions during the season were again generally favorable for the running of water. Besides furnishing

full supplies to several towns controlled by local Waterworks Trusts within the Wimmera-Mallee areas, reticulated systems of the following townships in this area were directly supplied by the Commission, viz. :—

|              |           |             |            |            |
|--------------|-----------|-------------|------------|------------|
| Berriwillock | Dimboola  | Lascelles   | Ouyen      | Ultima     |
| Beulah       | Dooen     | Manangatang | Quambatook | Waitchie   |
| Birchip      | Hopetoun  | Minyip      | Rainbow    | Watchem    |
| Brim         | Jeparit   | Natimuk     | Rupanyup   | Woomelang  |
| Culgoa       | Jung Jung | Nyah West   | Sea Lake   | Wycheproof |

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

The extension of the final section of the Main Taylors Lake Outlet Channel has been put in hand, and such progress has been made with its construction as to ensure its being ready for the next season's watering. The completion of this channel will make supplies of water available from Taylors Lake, Pine Lake, and Wartook Reservoirs to practically all the districts in the Wimmera-Mallee System, the eastern portion of which was hitherto commanded only from Lake Lonsdale and Fyans Lake. Some 20 miles of new channels and extensions have been constructed during the year to provide supplies to various small areas hitherto unsupplied, the principal extensions being in the localities of Walmer and Kewell East. Considerable expenditure was incurred in remodelling several of the more important channels. This work has resulted in the general watering being carried out more expeditiously.

Extensions of pipe mains and improvements of the reticulation systems in the urban districts of Natimuk, Dimboola, Brim, Rainbow, and Rupanyup have been carried out. An additional windmill has been erected for the service of Watchem in order to provide an increased supply which has become necessary through the development of the town. It is also proposed to construct a new storage to improve the supply of the township of Hopetoun, which at present is pumped from Lake Lascelles.

BIRCHIP, WYCHEPROOF, SEA LAKE, AND TYRRELL DISTRICTS.

New channels to the extent of 86 miles have been constructed chiefly in the Tyrrell District, the boundaries of which have been extended to include the country so supplied. Two storages of a total capacity of 15,000 cubic yards have been made and connected to the channel system to provide supplies, within reasonable carting distance, for lands in the parishes of Boorongie, Wagant, Burnell, and Kia too high to be supplied by gravitation. Good progress has been made with the construction of the Dennyng-Walpeup Main Channel, 40 miles of which have been constructed, including 7 miles which required the special treatment of clay lining in the sandy area traversed in the parish of Wathe. The construction of an additional length of 30 miles of this channel is now in progress, which will bring water to the vicinity of Walpeup. Clay lining will be necessary in about 6 miles of this section in the sandy portions of the parish of Patchewollock North.

Proposals to supply by pumping are being investigated for the high area west of the Mildura railway line in the vicinity of Speed, and also for an area of high country to the west of the new railway at Patchewollock. The Watchupga East Channel, 13 miles long, has been constructed to supply a considerable area, partly in Sea Lake District and partly in Birchip District, which was hitherto unsupplied.

A considerable extent of remodelling of main channels throughout all the districts has also been carried out to provide for the better and more expeditious distribution of water.

Steps have been taken to form, from part of the Tyrrell District, a new district to be known as the Eureka District, the supply for which will be pumped from the existing Wahpool Channel. The proposed district, some 24 square miles in area, will be extended to include additional lands as they become supplied.

Extensions and improvements of the reticulation systems in the urban districts of Ouyen, Berriwillock, Birchip, and Sea Lake have been carried out. A proposal to reticulate the township of Nandaly is under consideration. An additional windmill has been erected for the Berriwillock Town supply to cope with increasing demands on the supply in consequence of urban development.

SUPPLY TO MARNOO AND CHARLTON DISTRICTS.

Ninety-one miles of the main channel from Glenorchy to Charlton have now been excavated; and the building of the numerous concrete structures necessitated by the nature of the country traversed is well in hand. It is expected that the remaining 14 miles of channel and all necessary structures will be completed by the end of the year. Water will then be available for supplies to the towns of Charlton and Marnoo and portion of the rural districts traversed by the channel.

A new storage with a capacity of 260,000 cubic yards is in course of construction for the Charlton town supply. Water will be conveyed by gravitation under pressure from the storage to the boundary of the Charlton Waterworks Trust District through 4 miles of 10-in. wood main. Water will be supplied by meter to the Charlton Waterworks Trust for distribution by that authority.

Proposals for a reticulated supply to the township of Marnoo have been accepted by the residents; and a commencement has been made with the construction of a local storage with a capacity of 60,000 cubic yards. From this storage, water will gravitate under pressure through 80 chains of 8 inch pipe main to the township.

Surveys have been completed for the extension of the main channel a distance of 25 miles to join the Corack-Wycheproof Main Channel; and a commencement has been made with its construction. This channel has been located to permit of the Wooronook Lakes being used for the purpose of storage and regulation in connexion with the supply to the Long Lake and Tyntynder Districts. These lakes with comparatively small expenditure can later, if necessary, be converted into a storage with a capacity of 8,000 acre-feet.

A proposal to supply an area between Marmal and Normanville from the Charlton channel system is being investigated.

#### LONG LAKE AND TYNTYNDER DISTRICTS.

Ten miles of channel extensions have been made in the above districts. A new storage of 8,000 cubic yards capacity has been constructed adjacent to the new railway line now being extended from Kooloonong to West Narrung.

The construction of the Yungera Channel, about 30 miles in length, to supply an area of new country adjacent to the north boundary of the Tyntynder District, has been commenced. This channel will, when completed, almost reach the limit of possible gravitation supply in this locality from the Winmerra-Mallec System. Short extensions of distributary channels may be possible within these districts, and surveys will be carried out as required.

The reticulation supply of the Township of Manangatang was operated early in the year, and various extensions of the reticulations of the urban districts of Piangil, Nyah West, Ultima, and Manangatang have been carried out.

The installation of a reticulation scheme of supply for the township of Lalbert has been undertaken. The supply will be pumped by windmill from an earthen storage to an earthen service basin; both of which are in course of construction. From the service basin water will gravitate to the town mains through a 6 inch wood pipe. Proposals for a supply to the township of Chillingollah have been prepared by the Commission and accepted by the residents. The construction of the necessary works will be commenced immediately.

#### MORNINGTON PENINSULA DISTRICTS.

A considerable number of requests were received for the extension of the reticulation mains in the various townships supplied from the Mornington Peninsula Scheme, and reticulated areas were further greatly extended in the townships of Mornington, Frankston, Carrum, Chelsea, Edithvale, Aspendale, Noble Park, and Dandenong. The South Frankston high level scheme was completed, and is now operating satisfactorily. Full supplies were maintained throughout the year in the Beaconsfield, Frankston, South Frankston, Mornington, and Bittern reservoirs.

The new main supply line from Berwick to Heywood Hill reservoir has been completed and is now in working order, thus ensuring a full supply during the coming summer to meet all the steadily increasing requirements of the Dandenong and Springvale Districts.

Final surveys required for the extension of the main race from its present temporary terminus at Toomuc Creek to tap the Cannibal Creek and Bunyip River, as outlined in the original scheme, were so well advanced during the year that arrangements have been made to proceed immediately with the carrying out of this work so as to make available without delay adequate supplies to meet not only the rapidly increasing demands of the reticulations already connected, but also those which will be necessary for the reticulation of Hastings, Pakenham, Garfield, and Bunyip, as well as, later when required, the bayside Towns of Dromana, Rosebud, Rye, Sorrento, and Portsea. This new main connecting race will also give an abundant supply for the scheme of development of irrigation by pressure pipes of small, well-situated blocks in semi-rural areas of quality suitable for market gardening and other forms of intensive cultivation.

To provide for a beginning of this intensive cultivation a steady advance has been made with the Commission's scheme for draining, clearing, improving, and eventually supplying with water by pressure pipes the area of land, 3,200 acres, purchased by the Commission in the Hallam Valley for closer settlement in small blocks. Of this area 580 acres known as Troup's, Killen's,

and Crawley's, at Narre Warren North, have been drained and subdivided and fenced into blocks of approximately from 12 to 20 acres each. In this subdivision metal roads have been constructed giving access to each block, and an early start with the erection of settlers' houses on portion of the blocks will be made. Water under pressure is available for the settlers in this area from the large Berwick-Dandenong pipe main which passes through the settlement. In the main Hallam Valley area a bucket dredge has commenced operations, and some 3 miles of main drainage channel have now been completed in the direction of Dandenong. This channel will be continued through the settlement collecting the external flood waters from Berwick high lands, which now inundate the flats in the Hallam Valley area between Dandenong and Berwick, and will discharge them into the sea at either Carrum or Frankston. It is proposed to subdivide and fence all the area purchased by the Commission into Closer Settlement blocks and provide good roads giving access to them. The land will also be cleared and ploughed so as to enable the settler to commence productive work immediately on occupation. It is anticipated that a considerable number of blocks in this area will be available for settlement early in the coming year.

#### WONTHAGGI DISTRICT.

During the year some trouble was experienced in regard to the town water supply. The matter was thoroughly investigated, and the cause attributed to algal growths in the main reservoir at Lance Creek. This was successfully treated with sulphate of copper. There has been no recurrence of the trouble and the water is now quite satisfactory. The supply of water to the town was maintained without interruption, and necessary repairs were carried out.

In regard to the water supply to North Wonthaggi, an urban district has been proclaimed with a view to the construction as early as practicable of reticulation works.

#### NORTHERN MALLEE WATER SUPPLY.

Adjoining the area served by the Wimmera-Mallee Scheme, but above its channel levels, there is an area of about 1,250,000 acres which can only be supplied by bores and catchment tanks. In this area a considerable amount of work has been carried out in the clearing and improvement of roads and the construction of additional bores and catchment tanks.

#### BORES.

Three bores of a total depth of 1,845 feet were completed during the year. At Tyalla a bore was sunk to 442 feet, and good water, which rose to within one foot from the surface, was obtained. At Koonda a successful bore, 503 feet in depth, was completed. At Purnya unusable water only was obtained, and boring was discontinued at 900 feet. The total number of successful public bores in the Northern Mallee is now 97.

#### TANKS.

Six catchment tanks, with a total capacity of 30,720 cubic yards, were completed during the year, bringing the total number of tanks in this area to 193, providing a total storage of 1,032,470 cubic yards, equal to 174,228,000 gallons.

#### WINDMILLS.

The windmills and hand pumps erected on the bank of the River Murray to afford direct supplies to Murray Frontage Soldier Settlers are satisfactorily fulfilling the purpose for which they were installed.

#### ROADS.

During the year 155 miles of roads have been grubbed, bringing the total length of roads grubbed and cleared in this area to 4,253 miles. About 115 sandhills of a total length of 9 miles were improved by rubbing with local limestone.

#### WATER SUPPLY, MILLEWA.

This extensive Domestic and Stock Supply Scheme, to reticulate some 1,000,000 acres, details of which were set out in the last Annual Report, is now well advanced. Of the total area some 350,000 acres, comprising 421 blocks, have been subdivided and allotted.

The Lower Millewa Waterworks District, having been reticulated with water channels, has now been constituted. This District will be extended from time to time as the area of new settlement expands along the authorized railway 51 miles in length from Red Cliffs to "The Hut." Surveys and construction of channels have been steadily carried on during the year in areas in advance of settlement. In the first lift system 105 miles of channel have been constructed during the year; also four storages of a total capacity of 50,000 cubic yards. Three small catchment tanks have also been made to provide preliminary supplies, so as to enable channel construction to be proceeded with under more favorable conditions by minimizing water carting. A total length of 317 miles of channels has now been constructed in this district, the whole of which will be run during this year's second general watering.



As a considerable area, under what is known as the second lift system, is now about to be made available for settlement, it is intended to proceed with the installation of the necessary pumping machinery and the construction of the requisite service channels.

A gratifying feature in the development of this new district is the construction of tanks by settlers on their holdings which in number and capacity compare more than favorably with the progress made in older domestic and stock supply districts. Advice has been given on the ground to each settler as desired in respect to his tank site and the methods of construction, with the result that full advantage has been taken of natural features, and the average capacity of settlers' tanks is about 4,000 cubic yards obtained by the actual excavation of from 2,000 to 2,500 cubic yards and the holding of a considerable quantity of water above natural ground level.

In installing additional pumping machinery, as far as practicable pumping engines which have been rendered idle in other districts by the completion of Torrumbarry Weir and Lock on the River Murray, and of other works, are being utilized. These will form and fit in as suitable units of the total pumping machinery required when the supply to this extensive district is completed.

In the country known as the Rocket Lake and Sunset Area, further surveys have been carried out, one party at least being engaged solely on the work of endeavouring to find some feasible line of supply.

In the Millewa and adjoining areas, apart from the permanent water supply works, a large amount of work has been done in the grubbing of roads, rubbling of sandhills, and the construction of catchment tanks for preliminary water supply to settlers and contractors. In the County of Millewa alone 279 miles of roads have been grubbed, 100 sandhills of a total length of 8 miles have been improved by rubbling, and seven large tanks of a total capacity of 35,700 cubic yards have been constructed. In addition, a number of small tanks, totalling 2,900 cubic yards, have been sunk to provide water for road contractors.

In these areas there are now 20 large tanks and over 60 small tanks with a total capacity of 110,700 cubic yards. These catchment tank supplies, while essential to the opening up of new country, will eventually be connected with the channel systems, and will always be useful as public water supplies.

## DRAINAGE AND FLOOD PROTECTION SCHEMES.

### KOOWEERUP AND CARDINIA.

Following the record August flood referred to in the last Annual Report, adverse conditions for constructional work prevailed to the end of December last. Since then there has been a marked improvement in the conditions, and the main works have materially advanced, whilst many minor works have been satisfactorily carried to completion. At Modella the No. 4 Dragline Excavator completed the construction of the new channel whereby a large portion of the flow of the No. 6 Drain is now diverted into the enlarged No. 7 Yallock Drain. This work has proved effective in alleviating flooding over a large tract of low country in the locality of Modella, and in providing additional protection to lands bordering the lower reaches of No. 6 Drain.

In view of the proposal to undertake additional works to intercept the overflow from the Main Canal during abnormal floods and to convert the No. 6 Yallock Drain into a main carrier, it was considered essential to first improve the main outlet for the Yallock system from Bayles to the sea. For this purpose the No. 1 Dredger and No. 4 Dragline Excavator commenced operations during the year in the construction of a new channel and protective embankment on the east side of the Yallock Creek. Beginning at the South Gippsland railway line the No. 1 Dredger has advanced up stream a distance of about 1 mile with a cut averaging 50 feet wide on top and 9 feet deep, whilst below the railway the No. 4 machine completed 30 chains of double cut 60 feet wide on top and 9 feet deep to link up with the previously constructed channel extending to Western Port Bay. The No. 4 machine has now been transferred to Lang Lang to effect improvements at the outlet end of the river below the Main Coast-road.

At Heath Hill the No. 6 and No. 7 Dragline Excavators have been operating on the straight cut across the bend of the Lang Lang River, and approximately  $\frac{1}{2}$  mile of double cut, varying in depth from 8 feet to 14 feet has been completed. Excavation has been difficult owing to the extreme hardness of the ground, but better progress is anticipated on the softer ground now being encountered. Recently the new No. 10 Dragline Excavator was placed on this channel to permit the transference of the No. 6 machine to the Dingee District.

During the year McDonalds Drain, which receives the flows from Deep Creek and Northern Boundary Drains, has been slightly enlarged, and the double banks built up and strengthened throughout the entire length of 4 miles. At Garfield the extension of the Walkers Drain towards Bunyip has been completed by horsework for a distance of 1 mile, whilst the Northern Boundary Drain has been extended 110 chains to the proposed termination about  $\frac{1}{2}$  mile south

of Tynong station. Above Cora [Lynn] double 24 inch pipe culverts with flap doors have been installed at the outlets into the main canal of the 11 mile and Gunns Drains, to prevent as far as practicable the egress of main canal waters when at high level.

In the Kooweerup District approximately 180,000 cubic yards of earthwork have been removed during the year, mostly by mechanical means; while timber bridges, mainly on driven piles, have been constructed for a total length of 450 feet; a total of 440 feet of 24-inch concrete pipes have been laid for drainage outlets; 40 concrete drops totalling approximately 200 cubic yards have been installed; 3 miles of fencing erected, and miscellaneous work including clearing has been carried out.

Whereas, in the previous years, operations by the Commission have been restricted mainly to new constructional work, much has been done during the last twelve months with regard to maintenance and reconstruction of the existing lateral feeders to assist and facilitate internal drainage. This work has involved the cleaning out and the reforming of drains by shovel work for approximately 45 miles and 24 miles respectively. Maintenance has also included the removal of vegetable growths between the banks of the main canal for a total distance of 11 miles.

In the Cardinia District, the Cardinia and Toomuc combined main channel has been considerably enlarged under the South Gippsland railway line, below which additional capacity has been provided to the inlet by a new channel constructed by the No. 5 Dragline Excavator. This machine also completed a 30 foot cut for a length of 45 chains in extension of the Cardinia Catch Drain. Above the railway, the eastern bank of the Cardinia and Toomuc Channel has been strengthened and raised by horse work for a distance of 3 miles; and the bridge at Manks-road has been re-constructed and raised to provide additional waterway. The Toomuc Catch Drain has been cleaned out for its entire length of 4 miles, including enlargement over a section of 2 miles above Manks-road. A levee bank has been constructed at the head of the Cardinia Channel; and a triple 24 inch pipe outlet, with a concrete race and drop, has been installed to deliver the flow from St. Germain's directly into the Cardinia Channel.

On Hagelthorn's Estate the main internal drain has been extended 90 chains to the proposed termination; the protective drain along Wrights-road was completed over a length of 45 chains; and 100 chains of minor drains have been constructed. On the McGregor's Estate the intercepting drains along Bullarto and Island roads are well advanced for a total distance of  $2\frac{1}{2}$  miles.

In the Tooradin area the enlargement and deepening of the Tooradin Inlet Drain has been completed for 40 chains partly in double cut, by the No. 5 Dragline Excavator. To facilitate drainage from the local Soldier Settlement, a new drain has been constructed along Manks-road for a length of 70 chains, and an extension of Rutters Drain along the Tooradin-road is now being proceeded with. The Muddy-Gates Drain has been reconstructed by horse teams throughout a section of nearly 4 miles wherein a heavy deposit of silt had accumulated by reason of the friable nature of the surrounding country.

Throughout the Cardinia District, approximately 90,000 cubic yards of earthwork have been removed by excavating machines and horse work; bridges totalling 100 feet have been constructed; and minor work including clearing for excavation, concrete work, and maintenance has been carried out.

#### ECHUCA.

The Echuca (High-street) scheme of works has continued to prove successful in protecting from flooding the properties embraced within the District.

#### LOCH GARRY.

The Loch Garry Flood Protection Works, referred to in the last Annual Report, have been completed. These works, for the protection from flooding of lands bordering the Bunbartha and Deep Creeks on the right bank of the River Goulburn, consist of 5 miles 51 chains of earthen levee bank around Loch Garry, and a concrete regulator and spillway 400 feet in length to control overflows from the Loch. The purpose of the scheme is to protect Bunbartha Creek and the lands flooded by it from overflow through Loch Garry until the river reaches a height equal to 34 feet on the gauge at Shepparton, and, when that height is reached, to allow only the same proportion to flow out of the Loch as flowed into it prior to the inception of the original Goulburn Levee works. A district known as the Loch Garry Flood Protection District has been constituted embracing some 40,000 acres of land benefiting by the works.

## KANYAPELLA.

The works described in last Annual Report for the conservation of a domestic and stock supply in Warrigal Creek and the exclusion to a considerable extent of River Goulburn flood waters from that creek have been completed; and a district to be known as the Kanyapella Flood Protection District, covering 13,500 acres, has been constituted.

## MURRAY LEVEES.

A number of applications for permission to erect levee banks in the States of New South Wales and Victoria at various places along the River Murray were dealt with by the Interstate Committee of Representatives on Murray Levee Proposals appointed for the purpose, and which comprises officers of the New South Wales Water Conservation and Irrigation Commission and the State Rivers and Water Supply Commission of Victoria.

Surveys were carried out along the River Murray from the Wakool Junction to Swan Hill, and lines of permissible levees were laid down. These lines have, on the recommendation of the Committee, been adopted by both States as governing all future levee proposals along that length of river.

## RIVER EROSION, DRAINAGE, AND GENERAL.

During the year applications were received from various parts of the State for permission to carry out flood protection, drainage, and other works. Investigations have been made in connexion with these applications, and in many cases permission has been given under the provisions of the *Water Act 1915* to the parties interested to construct approved works at their own cost.

The surveys of the Latrobe and Tarwin River flats mentioned in last year's Report have been completed; but much investigation remains to be made before the practicability of proposed schemes for flood protection and drainage can be determined.

At the request of land-holders in the vicinity of the Avoca Marsh, near Mystic Park, investigations have been made, and a scheme is being prepared for the relief of lands affected by floodwaters overflowing from the Marsh.

During the year considerable attention was given to the investigation of the scheme for the protection from floods of the rich flats near Orbost, on the lower reaches of the Snowy and Brodribb Rivers. The total area of the flats is some 30,000 acres, of which one-half only is at present built up sufficiently high to justify protection from further siltation. As siltation on the remainder should be assisted as much as possible, the undertaking is necessarily one of large magnitude, requiring very special financial arrangements. Consequently some delay in carrying out the full scheme is unavoidable, and proposals are being considered whereby the local land-holders in certain sections of the area could be enabled to secure a considerable measure of relief by their carrying out local works in such a manner as would fit in with the full ultimate scheme.

A survey was carried out and a scheme of drainage designed at the request of the Lowan Shire Council and a number of ratepayers whose lands would benefit and who had guaranteed the cost of the survey. The object of this proposal is to drain certain limited areas of comparatively flat, rich, agricultural land liable to occasional flooding, lying between well-defined ridges running northwards in the vicinity of Kiata, Lorquon, Salisbury, and Gerang. An outline of a scheme of drainage of these areas was submitted to the land-holders, who considered, however, that the cost involved would at present be too great in view of the benefits likely to accrue.

## RIVER GAUGING.

As provided by Section 32 of the *Water Act 1915*, the work of gauging and recording the flows of the principal rivers and streams of the State has been continued. The returns of volumes stored in reservoirs have been made available weekly for publication.

The results of all gaugings to the end of 1924 have been published, the last publication being a compilation of results from 1st January, 1919, to 31st December, 1924. This includes a brief outline of previous publications on the subject indicating when and by whom they were published. It shows the behaviour of the River Murray and that of the principal Victorian streams during the periods mentioned; and, where sufficient rainfall information was available, the proportion of the mean local rainfall discharged during each year. A summary of all information available since the inception of the work shows, among other things, what would be the warrantable capacity of storages for practically all streams gauged to admit of an efficient regulation of their flows. Three graphs also appear in the publication. They indicate between what limits the flood discharge and the mean and minimum annual discharges of any Victorian streams not yet gauged could be assumed to be, provided the extent of catchment area and situation be given.

During the year, gauging stations have been established on the Buckland River at Buckland Bridge ; Buffalo River at McGuffies Bridge ; Dandenong Creek at Dandenong ; Eunemmerring Creek at South Eastern Railway ; King River at Whitfield ; Lang Lang River at Heath Hill ; Latrobe River at Willowgrove ; Tanjil River at Blue Rock ; Ovens River at Bright ; and a flood warning station on the Latrobe River at Noojee. The establishment of the stations on the Latrobe and Tanjil Rivers has permitted the abandonment of the station at Yallourn. The number of gauging stations in the State is now 57.

#### 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 waters.

While the conditions during the year have been somewhat unfavorable for the artificial application of water for irrigation, extensive diversions of water for this purpose, as well as for domestic and stock and commercial purposes, have been made as heretofore under the authority of annual diversion permits.

In addition to renewals of 1,257 permits previously granted, 271 new permits were issued during the year.

The authorized diversions now in force are—

|                |    |    |    |       |
|----------------|----|----|----|-------|
| Yearly permits | .. | .. | .. | 1,528 |
| Flood permits  | .. | .. | .. | 1     |
| Licences       | .. | .. | .. | 18    |
|                |    |    |    | 1,547 |

#### GOULBURN HEAD-WORKS AND MAIN CHANNELS.

These works comprise the Goulburn Weir ; the Goulburn-Waranga Channel, extending from the Weir to Waranga Reservoir, a distance of 23½ miles ; the Waranga Reservoir ; the Main Channel, extending westerly from the Waranga Reservoir to the Loddon River, a distance of 98 miles ; and the Main Eastern Channel, which extends from the Goulburn Weir to the Shepparton District, a distance of 31½ miles. The total length of main channels is 153 miles. The irrigation districts supplied are South Shepparton, Shepparton, Rodney, Stanhope, Tongala, Deakin, Rochester, Echuca North, Dingee, and Tragowel Plains.

The concrete weir and regulator and earthen embankment on the River Loddon, where the Waranga Western Main Channel joins the Loddon, has been constructed. This work has now rendered practicable the diversion of the flows either from the River Loddon or of water from the Goulburn for the supply of the country west of the River Loddon. This river is now flowing through the regulator.

Good progress has been made with the construction of the new large branch channel from the existing main channel at Tandarra, which is to connect with the existing system of the Tragowel Plains District. Excavation work has been practically completed to 21 miles 30 chains, at which point the capacity of the channel is reduced from 300 to 240 cubic feet per second. Earthwork is in progress along the remaining sections between this chainage and the proposed junction with the existing No. 1 channel of the Tragowel Plains System. The 12 ft. diameter reinforced concrete syphons at Myers Creek and at Bullock Creek have been completed, in addition to eight bridges, four regulators, a measuring weir, a number of subways, and minor structures.

On the eastern side of the Goulburn Weir the enlargement of the existing Main Channel from the Goulburn Weir to the north side of the Broken River from its original capacity of 333 cubic feet per second to 550 cubic feet per second was found to be necessary to enable it to supply the great increase of area proposed for irrigation. It has been decided to deal at present with 7 miles of the channel. During the last eight months of the year a bucket dredge has been employed continuously on this work ; about 1½ miles of the section have been completed, and the delivery of irrigation supplies has proceeded throughout the year without interruption.

A commencement has been made with the work of re-modelling portion of the existing Waranga Western Main Channel between the Moora and Cornella Creeks. The completion of this work will render available an increased discharge which is required to meet additional demands for water.

The water at the Goulburn Weir was lowered in order to examine the submerged fittings, and, although this structure has been erected for over 34 years, only minor repairs were found necessary.

## NEW STORAGES.

### SUGARLOAF RESERVOIR.

The dam for this reservoir is situated on the Goulburn River below the junction of the Delatite River, about 18 miles from Alexandra. The bed of the river at the site is at an elevation of about 700 feet, the datum being low water Hobsons Bay. The design now being carried out, with the slightly increased height recently adopted, will store water to a height of 823 feet above the same datum, and will have a capacity of 306,000 acre-feet. Surveys made show that a storage basin to the elevation of 875 feet above datum with a capacity of 918,000 acre feet, could be constructed, and, when necessary, such increased capacity could be attained by progressive stages.

The dam being constructed consists of a diaphragm wall of reinforced concrete, built from bed rock—which in places is 75 feet below ground surface—to crest level, a wall of clayey material on the upstream side of the diaphragm, and supporting masses of rock quarried from the adjacent hills. The diaphragm has been built up to a height of 135 feet above the river bed for its entire length with the exception of a portion, 150 feet in length, which, for construction purposes, has not yet been built above a height of 121 feet. The height of 135 feet is that originally contemplated for the first stage, but it is now intended to build a diaphragm to a height of 139.75 feet. This additional height will be built within the next few months. For three-fourths of the length of the bank, the clay filling and the rock fill on either side of the diaphragm have been built up to a height of 128 feet above the river-bed, i.e., in the case of the clay filling to within 7 feet, and in the case of the rock fill to within 12 feet, of the ultimate heights now proposed for the first stage. Along the remaining portion of the bank the clay and rock fill have been mostly built up to a height of 120 feet, with a minimum of 100 feet.

In the valve tower the installation of the oil engine, pump, and hydraulic lifters to operate the gates or valves has been completed, and the eight gates in the tower can now be opened and closed by these means. During the year more than 16,000 cubic yards of concrete were placed in the diaphragm or core wall in the bank, in the river section of spillway, and in the apron in the river bed. The crest of the portion of the spillway closing the gap between the wing wall at the western end of the rock fill embankment and the slope of Mount Sugarloaf immediately opposite, and over which the flood waters pass, was built up an additional 6 feet, i.e., to a total height of 76 feet above the river-bed, and water was stored up to that height during the summer. It is proposed to raise this portion of the spillway another 6 feet in the coming spring.

The construction of the cast-iron gates and pipes for the second (emergency or power) outlet, described in the Commission's last Report, is well advanced. It is anticipated that these gates and pipes will be delivered in time for placing in position during the coming year.

### WARANGA RESERVOIR ENLARGEMENT.

The construction of the concrete core wall in the Waranga Reservoir embankment, commenced in 1923, is now nearing completion. At the end of June, 1924, 1½ miles of this core wall had been constructed, and last year an additional 2 miles was completed, leaving only another mile to complete the core wall throughout the entire length of the embankment. It is expected to have this done in time to raise the water in the reservoir for the requirements of the irrigation season of 1925-26.

Minor repairs and alterations were also carried out on the Inlet and Outlet channels to the Waranga Reservoir, including the raising of a measuring weir on the Waranga-Western Outlet Channel.

### WIMMERA STORAGES.

The building of the embankment for the first stage at Pine Lake Reservoir, involving 102,000 cubic yards of excavation together with the valve tower and outlet pipes, has been completed. A tramway line to Mt. Zero, a distance of 11 miles, is ready for the transport of stone for beaching the embankment. Taylors Lake Reservoir has been filled to its full capacity and is proving entirely satisfactory.

The total capacity of storages provided for the Wimmera-Mallee Scheme is now 152,350 acre-feet, whereas the total of a few years ago did not exceed 69,000 acre-feet. The works in course of construction will further increase the storage provision to no less than 212,350 acre-feet.

## TOTAL STORAGES IN STATE.

In 1902 the total capacity of storages in the State was 172,000 acre-feet. The present capacity is 871,610 acre-feet, and when the Sugarloaf, Wimmera, and Maffra Storages are complete the total capacity will exceed 1,275,000 acre-feet. The Hume Reservoir, in course of construction, will also contain at least 1,100,000 acre-feet, and may eventually be built to store 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. The following statement sets out the capacities of the various storages in the State :—

| <b>EXISTING STORAGES.</b>                               |    |    |    |    |    |    |    | Capacities in Acre-feet. |
|---|----|----|----|----|----|----|----|--------------------------|
| <i>Goulburn System</i> —                                |    |    |    |    |    |    |    |                          |
| Goulburn Weir   | .. | .. | .. | .. | .. | .. | .. | 20,700                   |
| Waranga   | .. | .. | .. | .. | .. | .. | .. | 333,400                  |
| Sugarloaf (part of 306,000 acre-feet)                   | .. | .. | .. | .. | .. | .. | .. | 62,000                   |
|   |    |    |    |    |    |    |    | 416,100                  |
| <i>Loddon-Murray System</i> —                           |    |    |    |    |    |    |    |                          |
| Laanecoorie   | .. | .. | .. | .. | .. | .. | .. | 14,000                   |
| Kerang North-West Lakes                                 | .. | .. | .. | .. | .. | .. | .. | 88,500                   |
| Kow Swamp   | .. | .. | .. | .. | .. | .. | .. | 40,860                   |
| Lake Boga   | .. | .. | .. | .. | .. | .. | .. | 28,000                   |
| Long Lake   | .. | .. | .. | .. | .. | .. | .. | 3,820                    |
|   |    |    |    |    |    |    |    | 175,180                  |
| <i>Wimmera-Mallee System</i> —                          |    |    |    |    |    |    |    |                          |
| Lake Lonsdale   | .. | .. | .. | .. | .. | .. | .. | 45,480                   |
| Wartook   | .. | .. | .. | .. | .. | .. | .. | 23,800                   |
| Fyans Lake  | .. | .. | .. | .. | .. | .. | .. | 17,100                   |
| Taylor's Lake   | .. | .. | .. | .. | .. | .. | .. | 30,000                   |
| Pine Lake (part of 62,000 acre-feet)                    | .. | .. | .. | .. | .. | .. | .. | 22,000                   |
| Lower Wimmera Weirs                                     | .. | .. | .. | .. | .. | .. | .. | 2,870                    |
| Batyo Catyo (Avon Regulator)                            | .. | .. | .. | .. | .. | .. | .. | 5,000                    |
| Lake Whitton  | .. | .. | .. | .. | .. | .. | .. | 1,300                    |
| Earthen Storages, Township Reservoirs, and Mallee Tanks | .. | .. | .. | .. | .. | .. | .. | 4,800                    |
|   |    |    |    |    |    |    |    | 152,350                  |
| <i>Maffra-Sale System</i> —                             |    |    |    |    |    |    |    |                          |
| Glennaggie Reservoir (part of 150,000 acre-feet)        | .. | .. | .. | .. | .. | .. | .. | 50,000                   |
| <i>Coliban System</i> —                                 |    |    |    |    |    |    |    |                          |
| Upper Coliban   | .. | .. | .. | .. | .. | .. | .. | 25,500                   |
| Malmsbury   | .. | .. | .. | .. | .. | .. | .. | 12,300                   |
| Subsidiary Reservoirs                                   | .. | .. | .. | .. | .. | .. | .. | 5,070                    |
|   |    |    |    |    |    |    |    | 42,870                   |
| <i>Werribee System</i> —                                |    |    |    |    |    |    |    |                          |
| Pykes Creek   | .. | .. | .. | .. | .. | .. | .. | 14,850                   |
| Melton  | .. | .. | .. | .. | .. | .. | .. | 17,000                   |
|   |    |    |    |    |    |    |    | 31,850                   |
| <i>Mornington Peninsula System</i> —                    |    |    |    |    |    |    |    |                          |
| Beaconsfield, Frankston, and Mornington Reservoirs      | .. | .. | .. | .. | .. | .. | .. | 1,560                    |
| Service Basins  | .. | .. | .. | .. | .. | .. | .. | 150                      |
|   |    |    |    |    |    |    |    | 1,710                    |
| <i>Miscellaneous</i> —                                  |    |    |    |    |    |    |    |                          |
| Wonthaggi   | .. | .. | .. | .. | .. | .. | .. | 1,550                    |
|   |    |    |    |    |    |    |    | 871,610                  |

**ADDITIONAL STORAGE BEING PROVIDED BY WORKS IN COURSE OF CONSTRUCTION.**

|   |    |    |    |    |    |    |    |           |
|---|----|----|----|----|----|----|----|-----------|
| <i>Goulburn System</i> —  |    |    |    |    |    |    |    |           |
| Sugarloaf Reservoir (balance of 306,000 acre-feet)  | .. | .. | .. | .. | .. | .. | .. | 244,000   |
| <i>Wimmera-Mallee System</i> —  |    |    |    |    |    |    |    |           |
| Pine Lake (balance of 62,000 acre-feet)   | .. | .. | .. | .. | .. | .. | .. | 40,000    |
| Green Lake  | .. | .. | .. | .. | .. | .. | .. | 20,000    |
|   |    |    |    |    |    |    |    | 60,000    |
| <i>Maffra System</i> —  |    |    |    |    |    |    |    |           |
| Glennaggie Reservoir (balance of 150,000 acre-feet)   | .. | .. | .. | .. | .. | .. | .. | 100,000   |
| <i>Murray System</i> —  |    |    |    |    |    |    |    |           |
| Hume Reservoir, at junction with Mitta River, half share (This may be increased to 1,000,000 acre-feet) | .. | .. | .. | .. | .. | .. | .. | 550,000   |
|   |    |    |    |    |    |    |    | 1,825,610 |

**Total capacity of Storages, when works in hand are completed**

# RIVER MURRAY WATERS AGREEMENT WORKS.

## GENERAL OUTLINE.

The scheme of works provided in the River Murray Waters Acts, passed by the Governments of the Commonwealth and of the States of New South Wales, Victoria, and South Australia, comprises 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 Darling or the River Murrumbidgee, as may be decided by the Government of New South Wales. The Acts also provide that, for purposes of construction, the Minister for Public Works of New South Wales shall be the Constructing Authority for that State; that, for the State of 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.

Subsequent legislation has provided that, of the works of the River Murray Agreement, the construction of those which will provide for the needs of irrigation shall have precedence over the construction of any such works as will be primarily for the requirements of navigation.

It was mentioned in last year's Report that the conference of Ministers of the interested Governments, who met on the 8th and 9th August, 1924, had recommended:—

1. That provision should be made for outlet works at the Hume Reservoir suitable for the purpose of hydro-electric generation in addition to the purposes set out in the River Murray Agreement, provided that the use of the reservoir for such generation of power will not in any way interfere with the output therefrom of the volumes of water required for the purposes set out in the River Murray Agreement.
2. That the cost of such additional works, estimated at £40,000, shall be borne in equal shares by the Governments of New South Wales and Victoria, which Governments should have the sole use of any power generated at the reservoir.
3. That the Commonwealth Government be requested to give a formal assurance that no claim will be made under clause 10 of the First Schedule of the *Seat of Government Surrender Act of 1909* to any electricity that may be developed at the Hume Reservoir in connexion with the proposed works or any other works which may be established there.
4. That the work of construction of the Hume Dam, of sufficient dimensions to provide for a reservoir of 2,000,000 acre feet, proceed for a period not exceeding three years, and that the question of the ultimate capacity and completion of the reservoir be then the subject of a further conference of Ministers representing the four Contracting Governments; provided that, if the reservoir be increased above the capacity of 1,100,000 acre feet, it be understood that the additional water shall be used for meeting the present allocation obligations under the River Murray Agreement and as a reserve for dry years, such reserve to be used at the discretion of the River Murray Commission.

All the Governments concerned have now adopted the recommendations set out.

During the year the Constructing Authority for New South Wales has carried the concrete foundations on its side of the river from the north end of the dam to where they will join the coffer-dam being constructed to receive work in the river channel.

It has also constructed some 500 feet of coffer-dam for the weir and Lock No. 10 being carried out by it at Wentworth.

The Constructing Authority for South Australia at various sites from Blanchetown to Lake Victoria has completed weirs and Locks Nos. 1 and 3, commenced No. 2, brought Nos. 5 and 9 to stages approaching completion, and made further progress with the storage works at Lake Victoria.

The State Rivers and Water Supply Commission, the Constructing Authority for Victoria, is now engaged in carrying out works under the River Murray Agreement as set out hereunder.

## HUME RESERVOIR.

The work of construction of the main embankment on the Victorian side was continued during the year.

In accordance with the decisions of the four Contracting Governments of the River Murray Agreement, following a conference held in Melbourne on 8th and 9th August, 1924, the foundations of the earthen embankment have been so widened as to enable the height of the dam to be increased at some future date, if required, to provide a storage of 2,000,000 acre-feet of water.

The average height of the earthwork above the natural surface of the ground as now constructed is 30 feet over a length of about 1,500 feet ; and during the year 316,000 cubic yards of earthwork have been placed in position.

The foundations of the core trench for the concrete core wall have been extended towards the Victorian bank of the River Murray, and are now within 300 feet of that bank. The quantity of earth and rock excavated during the year from these foundations was 10,000 cubic yards. These foundations are now complete for a length of 2,350 feet, and the average and maximum depths are 45 feet and 90 feet respectively below natural surface. During the year 177 tons of reinforcing steel and 9,300 cubic yards of concrete were placed in the concrete core wall above and below the natural surface of the ground. The quantity of gravel transported to the works from Chiltern during the year was 15,000 cubic yards.

To the construction plant were added two locomotives, one steam shovel, twelve side-tipping trucks, one grab bucket, workshop machinery, electric motors, two pumps, and a quantity of rails.

Investigation work in connexion with the proposed bridge to provide access to the Bethanga District is being carried out as well as a general investigation with New South Wales as to best location or locations for a diverting weir to supply new irrigable areas from the new storage.

On 26th March last a large party consisting of the Premier, the Honorable John Allan, and Members of both Houses of Parliament visited and inspected the Hume Reservoir works in progress on both sides of the River Murray, and expressed great satisfaction at the progress made.

## TORRUMBARRY WEIR AND LOCK.

This weir and lock has been in successful operation, and water was diverted for the irrigation of the extensive areas in Cobuna, Gannawarra, Kerang, Koondrook, and Swan Hill Irrigation Districts.

The work done during the year was the placing in position of the permanent winding engine and boiler, the erection of the winch house, the building of a protective levee bank upstream from the lock where the river was eroding the bank, general maintenance work, and the dismantling and dispatch of the remaining items of construction machinery to other works.

## NO. 11 WEIR AND LOCK, MILDURA.

During the year efforts were concentrated on the construction of the lock chamber and the excavation of the lock canal. The concreting of the lock walls and floor was completed ; most of the lock ironwork was placed ; and the construction of the lock gates and the stone beaching of the lock canal were commenced.

Good progress was made with these works, including excavation of the lock canal, 57,000 cubic yards ; stone beaching, 1,130 cubic yards ; bearing piles and steel sheet piling driven, 173 and 193 respectively ; 700 earthenware pipes placed under lock floor ; and 3,170 cubic yards and 5,600 cubic yards of concrete placed in lock floor and walls respectively.

In the Navigation Pass 187 steel sheet piles were driven, and a commencement was made on the construction of the first coffer dam on the left or Victorian bank for the work in the river bed, 73 round piles and 218 steel sheet piles being driven.

Several additions were made to the construction plant, including one steam pile hammer, one concrete mixer, three travelling cranes, two oil locomotives, two bin barges, one 72-ft. derrick boat, one motor launch, six boilers, several winches and electric motors, as well as several items of workshop machinery.

During the year 27,000 tons of materials were transported to the works.



## WORKS CONTROLLED BY OTHER AUTHORITIES.

(Under general supervision of the Commission.)

## SEWERAGE IN COUNTRY DISTRICTS.

The Bendigo Sewerage Authority has practically completed the reticulation of No. 1 or City area, and most of the tenements in the central portion of the City are now actually connected to the sewers. Work has, however, to a certain extent been held up owing to a special inquiry being made by a Royal Commission which was appointed at the request of the Bendigo Authority to investigate a number of complaints by the Public.

The Ballarat Sewerage Authority has completed the construction of the main outfall sewer and the first unit of the treatment works. Tenements will shortly be connected to the sewers in the areas already reticulated.

At Colac the Authority has completed a detailed survey of the town, and is now proceeding with the preparation of the necessary plans.

Applications for the constitution of Sewerage Authorities have been received from Horsham, Lorne, Mildura, and Swan Hill, while other country centres, such as Benalla, Echuca, and Kyneton, are also contemplating the installation of sewerage systems.

## COUNTRY WATER SUPPLIES.

Under the general supervision of the Commission many important works were carried out by waterworks trusts and local governing bodies, of which there are now 105 and 18 respectively.

The Apollo Bay Waterworks Trust has practically completed the construction of works, and is now supplying water from Andersons Creek.

The Boort Waterworks Trust has installed a new pumping plant, and now supplies the Railways. The pumping was previously carried out by the Railway Department, but the new arrangement should prove more satisfactory.

The Coleraine and Casterton Waterworks Trust has commenced the construction of a large storage reservoir at Konongwootong, and progress is being made with the laying of the main pipe line to Coleraine.

The Corryong Waterworks Trust has, during the year, completed the works for the supply of the township of Corryong.

The Devenish Waterworks Trust, recently constituted, has made good progress with the construction of its pumping plant, concrete water tower, and reticulation mains; it is anticipated that water will be supplied to the township at a very early date.

The Euroa Waterworks Trust is enlarging 4 miles of the main pipe-line from the Mountain Hut Reservoir. The Heathcote Waterworks Trust is increasing its storage by raising the Caledonia Gully Reservoir.

The Korumburra Waterworks Trust is increasing its storage on Commissioners Creek.

The Mildura Urban Waterworks Trust has erected a large crude oil engine and pump to replace the existing steam plant which was inadequate to supply the requirements of the town.

The Nhill Waterworks Trust has put down a new well to supplement its supply, which was jeopardized by the partial collapse of the old well.

The Rutherglen Waterworks Trust intends replacing the old steam pumping plant with a new oil unit so as to effect savings in annual charges.

The Toora Waterworks Trust is making good progress with works for the supply of water from the Agnes River to the township of Toora.

The Trafalgar Waterworks Trust and the Yarra Junction Waterworks Trust were constituted, during the year, and have the construction of their works well in hand. The supplies are to be drawn from Sunny Creek and Britannia Creek respectively.

The Wedonga Waterworks Trust, during the year, completed its works for obtaining a supply by pumping from the River Murray, and the scheme is giving satisfaction.

Pipe extensions and other works were carried out by the Beechworth, Colac, Donald, Elmore, Healesville, Kerang, Kyabram, Seymour, Swan Hill, and Wangaratta Waterworks Trusts.

Proposed water supply schemes for the townships of Lismore, Melton, Portland, Port Fairy, and Tallarook were investigated.

The First Mildura Irrigation Trust has let a contract for a new steam pumping plant at the Nicholls Point Station. This should result in considerable saving in operating charges, and also enable further lands to be brought under irrigation.

## GENERAL.

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### LANDS UNDER CLOSER SETTLEMENT IN IRRIGATION DISTRICTS.

The number of successful applicants for irrigation blocks during the year was 195. In addition to this, the extension of storages and supply channels has allowed the settlement of some 300 new settlers in districts newly provided with a domestic and stock supply service. The total in the irrigated areas comprised 13 discharged soldiers, 135 civilians, and 47 approved land seekers from overseas. The lands thrown open for settlement totalled 3,940 acres—3,050 acres from lands held in reserve, and the balance, 890 acres, from lands purchased during the year.

The progress made with the extensions of the Goulburn Irrigation Channels enabled the Commission to subdivide and make available the two estates known as Harper's, of 1,170 acres, and 960 acres in Rodney and East Goulburn districts respectively, and further areas of 200 acres, part of late C. W. Wilson's Estate, in Rodney district, and 643 acres, known as Johnson's, Nihill's, and Luz's lands, in Tongala district. These provided 42 new irrigable holdings.

In the Koondrook Irrigation District, supplied from the River Murray by means of the recently completed Torrumbarry Weir, an estate of 660 acres, known as Flowerday's, was purchased and subdivided into twelve allotments.

A new feature of the development of the Closer Settlement policy of the Commission is the inauguration of a Closer Settlement area at Narre Warren, only some 24 miles from Melbourne. Several properties having a total area of 3,300 acres were purchased, and, as a first instalment, portions of the estates known as Troup's, Killen's, and Crawley's, containing about 280 acres, have been subdivided into some sixteen small holdings, which, on account of the richness of the soil and the proximity of the estates to the metropolis, are eminently suited for intense culture. Most of these were immediately taken up by horticulturists and poultry farmers, including some with life-long experience in market gardening businesses in the metropolitan area. Other subdivisional blocks are now being made available. The land, which is also commanded by the works of the Electricity Commission, will be drained, and water will be delivered under pressure from a main supply pipe of the Mornington Peninsula System.

The placing of thirteen discharged soldiers on irrigation farm blocks practically completes this phase of the Commission's work of repatriating discharged soldiers. In other respects, however, the work of repatriation is continuous, the Commission having undertaken to furnish the soldier settlers not only with advice in irrigated culture, so as to obtain adequate returns for their labour and financial outlay, but also to continue an adequate system of advances for the purchase of stock, and carrying out of permanent improvements to their holdings. Altogether 2,181 discharged soldiers have been placed on irrigable blocks. Of this total, 343 obtained their farms under section 20 of the Closer Settlement Act, as explained in previous reports.

The demands of the soldiers having been met, the Commission is making preparations for the settlement of local civilian settlers and such overseas land seekers as may come to this State under the provisions of the new migration agreement.

With the extension of the Goulburn Channel system, further areas will be made available for intending settlers as required. The Commission has in hand for this purpose about 30,000 acres of suitable land, purchased before the construction of the works. Included in this total are some 1,300 acres near Kyabram available for immediate occupation and 10,000 acres at Katandra, which will be served by the East Goulburn Channel, the enlargement and extension of which are now in progress; also about 3,300 acres at Calivil, near the Loddon River. The lands in reserve and temporarily leased also include a balance of about 10,000 acres of the irrigable portion of Red Cliffs Soldier Settlement on the River Murray, 3,000 acres at Maffra partly subdivided, and 3,000 acres of lands at Hallam and Narre Warren, which will be made available for settlement as occasion demands and as soon as the progress of the works permits.

The following statement shows the lands purchased and subdivided by the State and the extent of settlement on each estate. The subdivided portions of these estates are already supporting twenty times as many families as were living on them prior to their subdivision for Closer Settlement.

The statement shows also particulars of settlement effected under section 20 of the *Closer Settlement Act 1915*, outside the large estates subdivided by the Commission :—

| Closer Settlement Estates.  | Area of Lands purchased by the State in Acres. | Properties Subdivided. |           |  |                                     |                        |  |   |
|---|--|------------------------|-----------|--|-------------------------------------|------------------------|--|---|
|   |  | Area in Acres.         | Number.   | Number of Families thereon when Purchased. | Subdivided into—                    |                        | Number of Closer Settlement Blocks now occupied. | Present Increase in Number of Families. |
|   |  |                        |           |  | Number of Closer Settlement Blocks. | Average Area in Acres. |  |   |
| Shepparton .. .. .  | 14,170   | 14,170                 | 33        | 29   | 388                                 | 34                     | 375  | 344                                     |
| East Goulburn .. .. .   | 10,970   | 960                    | 1         | 1  | 13                                  | 71                     | 13   | 12                                      |
| Rodney .. .. .  | 2,800  | 2,750                  | 6         | 4  | 10                                  | 69                     | 34   | 30                                      |
| Stanhope .. .. .  | 21,500   | 21,500                 | 7         | 13   | 330                                 | 55                     | 301  | 288                                     |
| Kyabram .. .. .   | 4,600  | 3,000                  | 7         | 10   | 57                                  | 52                     | 53   | 43                                      |
| Tongala .. .. .   | 18,820   | 18,820                 | 40        | 35   | 314                                 | 58                     | 300  | 265                                     |
| Koyuga .. .. .  | 4,200  | 4,200                  | ) Pt. 1   | ..   | ( 50                                | 79                     | 48   | 48                                      |
| Cornelia Creek .. .. .  | 2,500  | 2,500                  |           |  |                                     |                        |  |   |
| Nanneella .. .. .   | 9,000  | 9,000                  | 17        | 7  | 119                                 | 73                     | 115  | 108                                     |
| Echuca .. .. .  | 3,600  | 3,600                  | 8         | 4  | 31                                  | 101                    | 30   | 26                                      |
| Bamawm .. .. .  | 13,400   | 13,400                 | 28        | 21   | 180                                 | 70                     | 176  | 155                                     |
| Dingee .. .. .  | 500  | 500                    | 3         | 1  | 17                                  | 27                     | 14   | 13                                      |
| Calivil .. .. .   | 3,300  | ..                     | ..        | ..   | ..                                  | ..                     | ..   | ..                                      |
| Cohuna .. .. .  | 12,000   | 12,000                 | 29        | 10   | 137                                 | 83                     | 119  | 109                                     |
| Koondrook .. .. .   | 9,060  | 9,060                  | 14        | 10   | 135                                 | 61                     | 111  | 101                                     |
| Swan Hill .. .. .   | 12,500   | 12,500                 | 34        | 16   | 303                                 | 39                     | 288  | 272                                     |
| Nyah .. .. .  | 3,800  | 3,800                  | 8         | 1  | 237                                 | 15                     | 233  | 232                                     |
| Merbein (Crown) .. .. .   | 8,300  | 8,300                  | ..        | ..   | 410                                 | 20                     | 407  | 407                                     |
| Red Cliffs .. .. .  | 33,000   | 18,000                 | 1         | 3  | 706                                 | 17                     | 696  | 693                                     |
| Bacchus Marsh .. .. .   | 70   | 70                     | 1         | ..   | 2                                   | 36                     | 2  | 2                                       |
| Werribee .. .. .  | 10,000   | 10,000                 | 1         | 11   | 233                                 | 36                     | 229  | 218                                     |
| Hallam .. .. .  | 3,300  | 280                    | 3         | 1  | 16                                  | 17                     | 13   | 12                                      |
| Maffra .. .. .  | 7,900  | 4,900                  | 7         | 4  | 107                                 | 43                     | 37   | 33                                      |
| Properties purchased under Sec. 20, C.S. Act 1915, outside above Estates .. | 209,290<br>19,540                              | 173,310<br>..          | 249<br>.. | 181<br>..                                  | 3,844<br>..                         | 41<br>..               | 3,611<br>200                                     | 3,430<br>..                             |
|   | 228,830  |                        |           |  |                                     |                        |  |   |

#### PROGRESS OF IRRIGATED CLOSER SETTLED DISTRICTS.

The development of irrigation in all parts of the world is one of slow but sure growth: and, although in some countries there has been some slight retrogression on account of the post war slump in markets for agricultural produce, it is gratifying to note that in this country irrigation development has continued to make satisfactory progress.

A striking example of this is noticeable in the Bamawm Closer Settlement Estate in the Rochester District. This estate, which comprises an area of 13,400 acres, was, prior to its purchase for closer settlement under irrigation, used for cereal growing and sheep raising: and, although considered closely settled under dry farming conditions, supported only 21 families. In 1910 this Bamawm area was purchased by the Government and in 1912 subdivided into 180 blocks of an average area of 70 acres. The size of the individual holdings varies with the quality of the soil, and ranges from a few acres for workmen's holdings to 200 acres for mixed farming, where the soil is not of the best quality. Almost immediately after settlement, and before the settlers had time to establish themselves, they had to face the dry visitation of 1914-1915, which caused them heavy losses. The period 1915-1919 had then to be spent by the settlers in consolidating their position by effecting improvements and raising the quality of their herds. During this period it was necessary for the Commission to assist the settlers by advances while at the same time the arrears of instalments due increased, reaching a maximum of £25,000 in 1919. As a set off, however, the settlers' improvements during this period increased from £42,642 in 1916 to £71,600 in 1919, and since then there has been a steady decrease in the amount owing, while further improvements have been made, making a total value of permanent improvements of £140,412. In addition the settlers' stock and implements bring the total value of their assets to over £275,000. The value of the land has likewise increased by at least a further amount of £100,000. Thus to-day the Settlement is in a very satisfactory condition as the subjoined figures show.

The stages in the progress made by the district from 1910 when it was used mainly for cereal growing and supported 21 families and now when it supports 176 families are shown by taking the progress at two different periods, 1916 and 1925 thus :

|   | 1916.     | 1925.     |
|---|-----------|-----------|
| Land Purchase Money due by Settlers ..  | £127,500  | £105,960  |
| Advances--Repayments due by Settlers .. | £29,500   | £17,568   |
| Improvements } Value of ..              | £72,758   | £275,000  |
| Stock ..                                |           |           |
| Implements ..                           |           |           |
| Population .. .. .                      | 501       | 1,182     |
| Citrus Groves .. .. .                   | 396 acres | 816 acres |
| Deciduous Orchards .. .. .              | 376 "     | 624 "     |
| Lucerne, Cereal, and Fodder Crops ..    | 6,757 "   | 11,020 "  |
| Cattle .. .. .                          | 769       | 2,073     |
| Horses .. .. .                          | 550       | 670       |
| Sheep .. .. .                           | 3,274     | 6,950     |
| Pigs .. .. .                            | 1,542     | 8,982     |
| Poultry .. .. .                         | 3,167     | 24,000    |

It will thus be seen that, during the past ten years, there has been a most marked increase in the value of assets with a corresponding decrease in amounts owing, and this improvement should be even more pronounced from this on, as settlers begin to get the full benefit of developed orchards and increasing number of stock.

Other irrigation districts which contain a number of Soldier and Overseas Settlers are progressing along similar lines : but because of their more recent settlement, are naturally not yet in the same stage of development as those of the somewhat earlier settlers referred to at Bamawm.

In the dried fruit areas special attention was this year paid to harvesting and processing, with the result that the main crop of sultanas produced was of outstanding quality, being considered by experts to be equal to, if not better than, the highest grades produced in other countries. This result has been attained to some extent by the introduction of a new process of dipping known as the cold dip ; it may also, however, be attributed to the special care and attention paid to the fruit from the time it left the vine till it was packed in boxes for shipment to the overseas markets and to the operations of the recently established Victorian Dried Fruits Board, which controls Australian sales, and to the Commonwealth Dried Fruits Control Board, which deals with sales overseas.

Settlement during the year has been effected mainly in the Murrabit and Shepparton irrigation districts. In the Murrabit district the opening of the new railway has given the district a great impetus and the new township of Murrabit is developing with the usual rapidity of new towns in irrigation districts.

The Co-operative Fruit Canneries at Shepparton and Kyabram again had a most successful season, the combined pack totalling over 8,000,000 tins. This was disposed of on the overseas and local markets at prices which enabled the canneries to pay a reasonable price to the grower. During the past few months another co-operative cannery has, with the assistance of the Government, been established at Mooroopna, which will be capable of dealing with a large proportion of the splendid crop of fruit grown at Ardmona, Mooroopna, and district, which previously was forwarded to Melbourne or Sydney to be processed. Arrangements have also been made whereby the Kyabram Cannery is being increased and that at Shepparton not only doubled in capacity but also provided with a Cool Store, to allow for the more systematic, regular, and convenient processing of the large quantities of fruit which mature at about the same time.

Herd Testing Associations have, during the year, been formed in the Tongala, Nanneella, Colnua and Kerang Irrigation Districts, and a similar association is also proposed at Shepparton. These will have a beneficial effect by indicating which are the unprofitable cows in the district and so improving the quality of the herds and their milk producing capabilities. As has been pointed out in previous reports some of the best pure bred herds in the State are located in irrigation districts : and it is interesting to note as a proof of this that the prize given at the Royal Agricultural Show last year for the most economical production of butter fat from one cow was awarded to a settler in the Tongala Irrigation District.

The Irrigation Research Committee, comprising representatives of the Department of Agriculture and the State Rivers and Water Supply Commission, the formation of which was announced in the last Annual Report, has carried out experiments at Swan Hill and Rochester, during the past year, and these will be extended to Stanhope and Tongala. The results obtained were most gratifying and indicated that, given the correct manurial treatment, crops yielding as much as seven tons of lucerne hay per acre could be obtained.

The Commission makes a practice of holding annual conferences of those officers directly controlling closer settlement operations and this year a very full and instructive meeting of supervisors was held at Head Office, when matters affecting the welfare of settlers were fully discussed.

## ADMINISTRATION.

### EXTENSIONS AND EXCISIONS.

During the year an area of 13,347 acres, including 8,000 acres served by Lake Boga Main Channel, was added to the Swan Hill Irrigation and Water Supply District making the total area now 35,267 acres. Shepparton Irrigation District was extended by adding thereto the recently purchased estates known as Dennis's and Thomas's, comprising a total area of 3,200 acres previously included in the Shire of Shepparton Waterworks Trust District, from which an excision was made. Rochester Irrigation District was extended by the addition of an area of 2,700 acres the major portion of which was excised from Deakin Irrigation District. Koondrook Irrigation District was extended by the inclusion of about 3,700 acres mainly comprising the estates known as Tye's, Roberts's, Anderson's and O'Donnell's.

As a result of the completion of the Torrumbarry Weir on the Murray and the early completion of the Sugarloaf Reservoir on the Goulburn, it is proposed to extend the areas of a number of existing Irrigation Districts and to constitute such new irrigation districts as Leitchville, Third Lake, Calivil, Katandra and others.

Tyrrell Waterworks District has been extended by the addition of 22,000 acres, excised from Walpeup East Waterworks District. On the other hand some 15,000 acres which were too high to be served by gravitation have been excised and constituted the Eureka Waterworks District with a special pump supply. Tyntynder Waterworks District has been extended by the inclusion of 15,000 acres of recently settled lands not previously within any Waterworks District, while Curwarup Waterworks District was extended by the inclusion of 3,860 acres of new lands.

Yelta Waterworks District has been extended by the addition of a new area of 2,600 acres, and similarly an area of 800 acres has been added to Long Lake Waterworks District.

Wonthaggi Waterworks District has been extended by the inclusion of about 560 acres at North Wonthaggi and additions and adjustments have been made to Carrum, Dandenong, Dimboola, Rainbow, South Frankston, Spring Vale and Werribee Urban Districts.

### NEW AND PROPOSED DISTRICTS.

As indicated in last year's Report, the South Shepparton Irrigation District, comprising some 14,000 acres, immediately south of the Broken River, but drawing its supply from the Goulburn System, has been constituted.

The Lower Millewa Waterworks District, comprising the first allocation of 250,500 acres, has been constituted and will be rated during the current year. Eureka Waterworks District of some 15,000 acres of high land needing a pump supply has been constituted out of Tyrrell Waterworks area.

Flood Protection Works having been carried out, the Loch Garry, and Kanyapella Flood Protection Districts embracing lands benefited have, as mentioned in last year's Report, been constituted. The areas are 40,000 acres and 13,500 acres, respectively.

Reticulation works having been constructed for the townships of Dingee, Leitchville, Lockington, and Stanhope, all within irrigation districts, such townships will be rated accordingly. Similarly, new urban districts have been proclaimed for the townships of Manangatang, North Wonthaggi, Piangil, and Spring Vale, all within waterworks districts.

Reticulation works for the township of Merrigum were carried out by the Rodney Shire Council and the Merrigum Urban Trust has been constituted under its management, the area being excised from the Rodney Irrigation and Water Supply District.

### STAFF.

During the year Mr. E. J. Kenny, one of the oldest and most valuable officers of the Commission, who had been in charge at Merbein from its inception, died. The office has now been rearranged, and Mr. W. G. Smalley, Assistant Collector, has been made Secretary and Collector, while Mr. G. I. Picton has been transferred from Red Cliffs to supervise work of settlers. Mr. J. Barrett, Supervisor at Shepparton, was transferred to Tongala in place of Mr. E. Harpham, resigned, while Mr. R. S. Warden was appointed to the vacancy at Shepparton; Mr. G. McCallum was appointed Collector at Bendigo in place of Mr. W. Graham, deceased, while Mr. F. J. Cooke was appointed to control distribution of water from Torrumbarry Weir with Office at Gumbower.

Mr. J. D. Wallis was appointed District Officer at Treco in succession to Mr. L. W. Martin, resigned. Mr. H. W. Heslop retired from the position of Engineer-in-charge of the Red Cliffs Pumping Station, and Mr. G. W. Webb was appointed to the vacancy. Mr. A. A. Douglas, hitherto Office Assistant at Cohuna, was transferred to Onyon, Mr. L. G. Taylor being transferred from the Head Office to Cohuna. Mr. L. J. Scott, Assistant Engineer, was transferred from the Loddon Centre to Merbein, and Mr. R. H. Anderson was transferred from Head Office to Loddon Centre. Mr. K. G. McAlpin, District Secretary and Collector at Dandenong resigned, and the duties of the position have been merged with those of the Carrum Office, conducted by Mr. A. K. Titcher. Mr. G. F. Harding, Assistant Engineer at Merbein, resigned having accepted the position of Shire Engineer at Numurkah. Mr. J. Crawford, Mechanical Draughtsman, resigned to take up important duties at Cockatoo Island Dockyard.

### FIRE INSURANCE.

The Commission has continued its policy of carrying the fire risk on its own buildings. The premiums thus saved now amount to £4,682.

## RECEIPTS, DISBURSEMENTS, AND ESTIMATES.

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The receipts last year totalled £367,200, which is the highest amount yet collected in any year by the Commission, being no less than £132,000 over the collections of some six years ago. The revenue is fairly evenly divided between Irrigation Districts and Waterworks Districts in which in the aggregate no less than one hundred and twelve separate rates or charges have to be made each year.

The total disbursements from Annual Vote amounted to £228,398, and, notwithstanding the operations of the Commission have materially increased, this amount is only some £10,000 more than the total of last year's Vote. The expenditure of loan moneys amounted to £1,463,362. Details of this expenditure are given in another portion of the Report, and show that nearly half was expended in the provision of storages.

Although the collection of Rates and Charges was deferred in such districts as Merbein and Nyah owing to the crisis in the dried fruits industry, the revenue in the twenty-three Irrigation and Water Supply Districts amounted during the year to £151,779. After debiting all the Districts with working expenses and all interest chargeable the deficit for the year was £27,876, but against this there are now in the dried fruit districts deferred Rates and Charges amounting to a much greater sum. These, owing to the marked improvement in the industry, are now being collected. Omitting the three principal dried fruit districts the total collections for the year would have been sufficient to meet all interest and maintenance charges.

In the Coliban Districts the loss for the year was £27,064. As pointed out in previous Reports, the rating in these districts is specially limited by the Water Acts, and any appreciable reduction in this annual loss can only be achieved by a substantial advance in the progress of the whole area.

The number of Waterworks Districts under the direct control of the Commission is increasing each year, and including forty-four town supplies now total, exclusive of Coliban, sixty-three, an increase of seven for the year. The receipts from these Districts were £144,605, an increase of no less than £10,940 over the preceding year. This revenue made it possible to defray all working expenses and interest chargeable and yet show a profit of approximately £1,000, reducing the old outstanding aggregate deficit to £25,732.

The Commission has also the control of several Flood Protection Districts, and, although works are still in an uncompleted state, partial charges were levied, and a revenue of £4,262 was obtained. The revenue from this source will be materially increased when further protective works are constructed.

The estimate of disbursements during the ensuing year is £237,500, being an advance of only £5,000 over the previous year, notwithstanding the establishment of a number of new Districts, which, in turn, will later give a good revenue return. The estimate of receipts has been set down at £382,000 as against £365,000 for the previous year.

The Loan Liability of the State for Works of Water Supply at the close of the year was £15,757,894. Of this total £1,250,412 is for Free Headworks; £1,263,228 was written off; £147,046 was advanced to some early formed Local Authorities; £15,754 has not been expended; and £4,804,982 is represented by River Murray Works, and Uncompleted Works which are not yet revenue producing. Details of the latter are set out separately in the Statement of Loan Liability in this Report. The balance of £8,276,472 is the sum in respect of which those benefited by the various works are this year liable for payment of interest.

The present Interest Charges on loans amount to £630,537. Of this amount £107,095 is not chargeable to any districts, being debitabie against Free Headworks, Amounts Written Off, and Unexpended Balances, and £41,123 is debitabie against River Murray Works, while £151,144, although recorded for future charging, is not at present debitabie, being interest on cost of Uncompleted Works which are not yet revenue producing, leaving £331,175 as chargeable against the Commission and other Authorities. The amount available last year from the Revenue of the Commission and other Authorities to meet such interest (after providing a sum of £30,989 for non-revenue producing works and services not chargeable to any districts) was £238,238, as set out in the statement on page 46.

## RECEIPTS AND DISBURSEMENTS.

STATEMENT of Moneys received and disbursed during the year ended 30th June, 1925.

| Works.  | Receipts. | DISBURSEMENTS,<br>exclusive of Interest, Redemption, and<br>Depreciation Charges. |  |  | Excess.   |                                    |
|---|-----------|---|--|--|---|------------------------------------|
|   |           | From<br>Annual Votes<br>and Special<br>Appropriation.                             | Deduct Capital<br>and Other<br>Disbursements<br>not<br>Chargeable to<br>Districts. | Net<br>Disbursements<br>on Maintenance<br>and<br>Management. | Receipts over<br>Net<br>Disbursements.                            | Disbursements<br>over<br>Receipts. |
|   | £         | £   | £  | £  | £   | £                                  |
| Coliban ... ..  | 40,385    | 14,889  | 138  | 14,751   | 25,634  | ...                                |
| Other State Works -   |           |   |  |  |   |                                    |
| Broken River ... ..   | 6         | 322   | ...  | 322  | ...   | 316                                |
| Goulburn ... ..   | 686       | 3,044   | ...  | 3,044  | ...   | 2,358                              |
| Kow Swamp ... ..  | 421       | 1,217   | ...  | 1,217  | ...   | 796                                |
| Lake Lonsdale ... ..  | 58        | 821   | ...  | 821  | ...   | 763                                |
| Loddon River ... ..   | 6         | 337   | ...  | 337  | ...   | 331                                |
| North-West Lakes ... ..   | 375       | 558   | ...  | 558  | ...   | 183                                |
| Irrigation Districts ... ..   | 151,779   | 106,454   | 25,056   | 81,398   | 70,381  | ...                                |
| Waterworks Districts ... ..   | 102,371   | 44,852  | 4,000  | 40,852   | 61,519  | ...                                |
| Urban Districts and Divisions ... ..  | 42,234    | 12,614  | ...  | 12,614   | 29,620  | ...                                |
| Flood Protection Districts ... ..   | 4,262     | 2,229   | ...  | 2,229  | 2,033   | ...                                |
| Luences, Diversions, Miscellaneous ... ..   | 24,617    | 14,819  | ...  | 14,819   | 9,798   | ...                                |
|   | 367,200   | 202,156   | 29,194   | 172,962  | 198,985   | 4,747                              |
| <i>Not Revenue Producing—</i>   |           |   |  |  |   |                                    |
| River Gauging, Surveys and Re-<br>ports, New Projects ... ..                                    | ...       | 6,698   | ...  | 6,698  | ...   | 6,698                              |
| Waterworks Trusts   |           |   |  |  |   |                                    |
| Boring for Water, Road<br>Clearing, Mallee and<br>Land Settlement ) Cost of Admin-<br>istration | ..        | 10,355  | ...  | 10,355   | ...   | 10,355                             |
| Loan Works ... ..   | ...       | 9,189   | ...  | 9,189  | ...   | 9,189                              |
| Totals ... ..   | 367,200   | 228,398   | 29,194   | 199,204  | 198,985   | 30,989                             |
|   |           |   |  |  | £2,000  |                                    |
|   |           |   |  |  | Amount available to meet Redemption and Depreciation ... ..       | £165,996                           |
|   |           |   |  |  | Amount available to meet Interest as per page 46 of Report ... .. |                                    |

## COLIBAN SYSTEM.

STATEMENT of Moneys received and disbursed during the year ended 30th June, 1925 ;  
and of Interest charged at the rate of 4 per cent. on Capital Debts.

| District.        | Capital<br>Debit<br>at 30th<br>June, 1925. | Receipts. | Disbursements and Interest Charged. |           |        | Excess.   |   |
|------------------|--|-----------|-------------------------------------|-----------|--------|---|---|
|                  |  |           | Disbursements.                      | Interest. | Total. | Receipts over<br>Disbursements<br>and Interest. | Disbursements<br>and Interest<br>over Receipts. |
|                  | £  | £         | £                                   | £         | £      | £   | £   |
| Coliban ... ..   | 1,318,505                                  | 38,974    | 13,412                              | 52,347    | 65,759 | ...   | 26,785  |
| Axe Creek ... .. | 1,750                                      | 275       | 265                                 | 70        | 335    | ...   | 60  |
| Harcourt ... ..  | 7,040                                      | 1,136     | 1,074                               | 281       | 1,355  | ...   | 219   |
| Totals ... ..    | 1,327,295                                  | 40,385    | 14,761                              | 52,698    | 67,449 | ...   | 27,064  |

## FLOOD PROTECTION DISTRICTS.

STATEMENT of Moneys received and disbursed from 1st July, 1920, to 30th June,  
1925 ; and of Interest charged at the rate of 4 per cent. on Capital Debts ; and also of  
Depreciation and Redemption charged as at 30th June, 1925.

## RECEIPTS.

| District.                | 1st July, 1920, to<br>30th June, 1924. | 1924-25. |                                   |        | Grand<br>Total<br>at 30th<br>June,<br>1925. |
|--------------------------|--|----------|-----------------------------------|--------|---|
|                          |  | Charge.  | Interest<br>and<br>Miscellaneous. | Total. |   |
|                          | £                                      | £        | £                                 | £      | £   |
| 1. Cardinia .. ..        | 3,880                                  | 1,352    | 5                                 | 1,357  | 5,237                                       |
| 2. Echuca .. ..          | 508                                    | 127      | ..                                | 127    | 635   |
| 3. Lower Kooweerup .. .. | 9,307                                  | 2,702    | 76                                | 2,778  | 12,085                                      |
| Totals .. ..             | 13,695                                 | 4,181    | 81                                | 4,262  | 17,957                                      |

## DISBURSEMENTS, AND INTEREST DEPRECIATION AND REDEMPTION CHARGED.

| District.                | DISBURSEMENTS.                                  |                                     |                  |        | INTEREST CHARGED.                               |   |                                 | (A) DEPRE-<br>CIATION.<br>(B) RE-<br>DEMPT-<br>TION. | Grand<br>Total<br>at 30th<br>June,<br>1925. |
|--------------------------|---|-------------------------------------|------------------|--------|---|---|---------------------------------|--|---|
|                          | 1st July,<br>1920,<br>to 30th<br>June,<br>1924. | 1924-25.                            |                  |        | 1st July,<br>1920,<br>to 30th<br>June,<br>1924. | 1st July,<br>1924,<br>to<br>30th June,<br>1925. | Total at<br>30th June,<br>1925. |  |   |
|                          |   | Repairs<br>and<br>Mainten-<br>ance. | Manage-<br>ment. | Total. |   |   |                                 |  |   |
|                          | £   | £                                   | £                | £      | £   | £   | £                               | £  |   |
| 1. Cardinia .. ..        | 1,086   | 570                                 | 147              | 717    | 1,803   | 2,749   | 1,200                           | 3,949  | 5,752                                       |
| 2. Echuca .. ..          | 338   | 50                                  | 50               | 100    | 438   | 151   | 46                              | 197  | 635   |
| 3. Lower Kooweerup .. .. | 2,481   | 1,118                               | 294              | 1,412  | 3,893   | 6,851   | 2,520                           | 9,371  | 13,264                                      |
| Totals .. ..             | 3,905   | 1,738                               | 491              | 2,229  | 6,134   | 9,751   | 3,766                           | 13,517   | 19,651                                      |

## IRRIGATION AND WATER SUPPLY DISTRICTS.

STATEMENT of Moneys received and disbursed from 1st May, 1906, to 30th June, 1925; and of Interest charged at the rate of 4 per cent. on Capital Debits; and also of Depreciation and Redemption charged, as at 30th June, 1925. (Free Head-works excluded.)

## RECEIPTS.

| District.                   | 1st May, 1906, to 30th June, 1921. | 1924-25.      |                               |               |                             |                | Total.           | Grand Total at 30th June, 1925. |
|-----------------------------|------------------------------------|---------------|-------------------------------|---------------|-----------------------------|----------------|------------------|---------------------------------|
|                             |                                    | Rates.        | Compulsory Irrigation Charge. | Water Sales.  | Interest and Miscellaneons. |                |                  |                                 |
|                             | £                                  | £             | £                             | £             | £                           | £              | £                |                                 |
| 1. Bacchus Marsh .. .. .    | 57,910                             | 747           | 3,863                         | 331           | 762                         | 5,706          | 63,616           |                                 |
| 2. Boort .. .. .            | 40,165                             | 1,661         | ..                            | 1,366         | 25                          | 3,052          | 43,217           |                                 |
| 3. Campaspe .. .. .         | 12,317                             | 942           | ..                            | 83            | 11                          | 1,036          | 13,353           |                                 |
| 4. Cobuna .. .. .           | 128,217                            | 1,806         | 5,380                         | 571           | 281                         | 8,038          | 136,285          |                                 |
| 5. Deakin .. .. .           | 75,389                             | 3,550         | ..                            | 69            | 349                         | 4,368          | 79,757           |                                 |
| 6. Dingee .. .. .           | 15,840                             | 156           | 1,392                         | 150           | 312                         | 2,634          | 17,874           |                                 |
| 7. Dry Lake .. .. .         | 550                                | ..            | ..                            | ..            | 29                          | 29             | 579              |                                 |
| 8. Echuca North .. .. .     | 2,381                              | 327           | 1,871                         | 87            | 10                          | 2,325          | 1,706            |                                 |
| 9. Gannawarra .. .. .       | 98,610                             | 1,402         | 1,590                         | 995           | 87                          | 7,074          | 105,681          |                                 |
| 10. Kerang .. .. .          | 79,285                             | 2,167         | ..                            | 3,781         | 32                          | 5,980          | 85,265           |                                 |
| 11. Koondrook .. .. .       | 81,453                             | 1,316         | 2,994                         | 447           | 863                         | 5,620          | 87,073           |                                 |
| 12. Merbein .. .. .         | 158,695                            | 531           | 8,432                         | ..            | 298                         | 9,261          | 167,956          |                                 |
| 13. Mystic Park .. .. .     | 3,100                              | 196           | 583                           | 130           | 8                           | 917            | 4,017            |                                 |
| 14. Nyah .. .. .            | 16,949                             | 191           | 3,795                         | 43            | 149                         | 4,178          | 51,127           |                                 |
| 15. Rochester .. .. .       | 128,665                            | 2,424         | 10,909                        | 625           | 1,546                       | 15,501         | 144,169          |                                 |
| 16. Rodney .. .. .          | 339,743                            | 7,158         | 15,401                        | 1,708         | 1,819                       | 26,089         | 365,832          |                                 |
| 17. Shepparton .. .. .      | 65,922                             | 1,562         | 5,513                         | 178           | 1,165                       | 8,148          | 73,470           |                                 |
| 18. Stanhope .. .. .        | 17,661                             | 611           | 2,961                         | 111           | 1,614                       | 5,303          | 22,964           |                                 |
| 19. Swan Hill .. .. .       | 75,613                             | 920           | 4,277                         | 1,239         | 1,638                       | 8,063          | 83,708           |                                 |
| 20. Tongala .. .. .         | 58,249                             | 1,112         | 5,013                         | 178           | 1,629                       | 7,932          | 66,181           |                                 |
| 21. Tragowel Plains .. .. . | 118,012                            | 1,778         | 8,362                         | 2,215         | 288                         | 12,613         | 160,685          |                                 |
| 22. Treco .. .. .           | 7,406                              | ..            | 1,962                         | ..            | 133                         | 2,095          | 9,501            |                                 |
| 23. Werribee .. .. .        | 29,400                             | 796           | 1,073                         | 717           | 496                         | 6,082          | 35,482           |                                 |
| <b>Totals .. .. .</b>       | <b>1,670,722</b>                   | <b>31,347</b> | <b>91,407</b>                 | <b>15,421</b> | <b>13,604</b>               | <b>151,779</b> | <b>1,822,501</b> |                                 |

## DISBURSEMENTS, AND INTEREST DEPRECIATION AND REDEMPTION CHARGED.

| District.                   | DISBURSEMENTS.                     |               |               |              |               | INTEREST CHARGED.      |                                    |                                     | (A) DEPRECIATION.<br>(B) REDEMPTION. |                                      | Grand Total 30th June, 1925. |
|-----------------------------|------------------------------------|---------------|---------------|--------------|---------------|------------------------|------------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|------------------------------|
|                             | 1st May, 1906, to 30th June, 1921. | 1924-25.      |               |              |               | Total 30th June, 1925. | 1st May, 1906, to 30th June, 1921. | 1st July, 1921, to 30th June, 1925. | Total 30th June, 1925.               | (A) DEPRECIATION.<br>(B) REDEMPTION. |                              |
|                             | £                                  | £             | £             | £            | £             | £                      | £                                  | £                                   | £                                    | £                                    |                              |
| 1. Bacchus Marsh .. .. .    | 11,226                             | 76            | 832           | 199          | 1,107         | 15,333                 | 48,807                             | 1,852                               | 53,659                               | ..                                   | 68,992                       |
| 2. Boort .. .. .            | 22,231                             | 365           | 970           | 195          | 1,530         | 23,761                 | 14,541                             | 1,049                               | 15,590                               | (B) 1,100                            | 40,154                       |
| 3. Campaspe .. .. .         | 7,891                              | 182           | 276           | 66           | 521           | 8,415                  | 7,369                              | 117                                 | 7,486                                | ..                                   | 16,231                       |
| 4. Cobuna .. .. .           | 92,063                             | 1,528         | 1,609         | 205          | 3,342         | 95,405                 | 48,633                             | 3,969                               | 52,605                               | (A) 9,040                            | 157,020                      |
| 5. Deakin .. .. .           | 31,601                             | 510           | 778           | 178          | 1,466         | 33,067                 | 47,496                             | 2,803                               | 50,299                               | ..                                   | 83,366                       |
| 6. Dingee .. .. .           | 7,832                              | 421           | 186           | 61           | 971           | 8,803                  | 11,701                             | 1,175                               | 12,876                               | ..                                   | 21,679                       |
| 7. Dry Lake .. .. .         | 1                                  | ..            | ..            | ..           | ..            | 1                      | 549                                | 29                                  | 578                                  | ..                                   | 579                          |
| 8. Echuca North .. .. .     | 945                                | 166           | 563           | 113          | 842           | 1,787                  | 1,419                              | 1,484                               | 2,903                                | ..                                   | 4,690                        |
| 9. Gannawarra .. .. .       | 65,614                             | 1,331         | 1,277         | 213          | 2,821         | 68,435                 | 32,698                             | 3,623                               | 36,321                               | (A) 5,694                            | 110,150                      |
| 10. Kerang .. .. .          | 11,346                             | 1,773         | 1,888         | 381          | 4,042         | 15,388                 | 32,422                             | 2,196                               | 34,618                               | (A) 450<br>(B) 2,000                 | 82,156                       |
| 11. Koondrook .. .. .       | 56,054                             | 768           | 1,090         | 212          | 2,100         | 58,154                 | 45,311                             | 1,612                               | 49,953                               | (A) 1,501                            | 112,608                      |
| 12. Merbein .. .. .         | 124,818                            | 2,191         | 18,947        | 163          | 21,601        | 146,419                | 52,261                             | 7,036                               | 59,300                               | (A) 9,928                            | 215,617                      |
| 13. Mystic Park .. .. .     | 2,902                              | 93            | 183           | 76           | 652           | 3,554                  | 630                                | 466                                 | 1,096                                | ..                                   | 1,650                        |
| 14. Nyah .. .. .            | 41,964                             | 808           | 5,673         | 398          | 6,879         | 48,843                 | 20,523                             | 3,590                               | 24,023                               | (A) 2,802                            | 76,668                       |
| 15. Rochester .. .. .       | 63,267                             | 1,401         | 3,992         | 607          | 6,000         | 69,267                 | 98,121                             | 9,329                               | 107,450                              | ..                                   | 176,717                      |
| 16. Rodney .. .. .          | 141,854                            | 1,298         | 7,020         | 889          | 9,207         | 151,061                | 206,891                            | 17,429                              | 224,320                              | ..                                   | 375,381                      |
| 17. Shepparton .. .. .      | 30,749                             | 743           | 1,040         | 501          | 2,284         | 33,033                 | 54,849                             | 6,091                               | 60,943                               | ..                                   | 93,976                       |
| 18. Stanhope .. .. .        | 9,548                              | 812           | 1,276         | 188          | 2,276         | 11,824                 | 13,519                             | 2,930                               | 16,469                               | ..                                   | 28,293                       |
| 19. Swan Hill .. .. .       | 51,703                             | 1,858         | 1,398         | 413          | 3,699         | 55,402                 | 26,225                             | 4,162                               | 30,387                               | (A) 4,768                            | 90,557                       |
| 20. Tongala .. .. .         | 28,774                             | 1,079         | 1,182         | 298          | 2,469         | 31,243                 | 59,543                             | 5,621                               | 65,164                               | ..                                   | 96,407                       |
| 21. Tragowel Plains .. .. . | 63,898                             | 1,764         | 2,908         | 252          | 4,924         | 68,822                 | 88,205                             | 7,574                               | 95,779                               | ..                                   | 164,601                      |
| 22. Treco .. .. .           | 8,422                              | 139           | 1,046         | 155          | 1,340         | 9,762                  | 3,146                              | 2,826                               | 5,972                                | ..                                   | 15,734                       |
| 23. Werribee .. .. .        | 6,910                              | 270           | 767           | 285          | 1,322         | 8,232                  | 24,859                             | 1,701                               | 29,560                               | ..                                   | 37,792                       |
| <b>Totals .. .. .</b>       | <b>914,616</b>                     | <b>19,579</b> | <b>55,501</b> | <b>6,318</b> | <b>81,398</b> | <b>996,014</b>         | <b>939,724</b>                     | <b>97,957</b>                       | <b>1,037,681</b>                     | <b>41,553</b>                        | <b>2,075,248</b>             |



## WATERWORKS DISTRICTS.

STATEMENT of Moneys received and disbursed from 1st May, 1906, to 30th June, 1925; and of Interest charged at the rate of 1 per cent. on Capital Debts; and also of Depreciation and Redemption charged, as at 30th June, 1925. (Free Head-works excluded.)

## RECEIPTS.

| District.                          | 1st May, 1906, to 30th June, 1924. | 1924-25. |              |                              |         | Grand Total at 30th June, 1925. |
|------------------------------------|------------------------------------|----------|--------------|------------------------------|---------|---------------------------------|
|                                    |                                    | Rates.   | Water Sales. | Interest and Miscellane-ous. | Total.  |                                 |
|                                    | £                                  | £        | £            | £                            | £       | £                               |
| 1. Birchip .. .. .                 |                                    | 4,358    | 76           | 31                           | 4,465   | 275,391                         |
| 2. Sea Lake .. .. .                |                                    | 7,426    | 189          | 70                           | 7,685   |                                 |
| 3. Tyrrell .. .. .                 | 247,423                            | 9,349    | 5            | 237                          | 9,591   |                                 |
| 4. Wycheproof .. .. .              |                                    | 6,091    | 124          | 12                           | 6,227   | 6,104                           |
| 5. Carwarp .. .. .                 | 5,062                              | 979      | 13           | 50                           | 1,042   |                                 |
| 6. Carwarp Central .. .. .         |                                    | 111      |              | 1                            | 145     | 145                             |
| 7. Karkaroo .. .. .                | 101,597                            | 12,311   |              | 119                          | 12,430  | 111,027                         |
| 8. Kerang North-West Lakes .. .. . | 1,876                              | 141      |              | 1                            | 142     | 2,018                           |
| 9. Long Lake .. .. .               | 97,770                             | 9,291    | 58           | 131                          | 9,480   | 107,250                         |
| 10. Mornington Peninsula .. .. .   | 17,917                             | 3,502    |              | 47                           | 3,549   | 21,466                          |
| 11. Tyntynder .. .. .              | 19,397                             | 7,143    | 213          | 278                          | 7,664   | 57,061                          |
| 12. Upper Western Wimmera .. .. .  | 39,025                             | 3,989    |              | 4                            | 3,993   | 43,018                          |
| 13. Upper Wimmera United .. .. .   | 67,552                             | 5,938    |              | 14                           | 5,952   | 73,504                          |
| 14. Walpeup East .. .. .           | 4,894                              | 367      | 20           | 20                           | 407     | 5,301                           |
| 15. Walpeup West .. .. .           | 13,449                             | 1,772    | 3            | 89                           | 1,864   | 15,313                          |
| 16. Werribee .. .. .               | 3,165                              | 624      |              | 4                            | 628     | 3,793                           |
| 17. Western Wimmera .. .. .        | 146,492                            | 11,378   | 1,422        | 40                           | 12,840  | 159,332                         |
| 18. Wimmera United .. .. .         | 157,050                            | 13,166   | 576          | 171                          | 13,913  | 170,963                         |
| 19. Yelta .. .. .                  | 1,727                              | 322      | 28           | 4                            | 354     | 2,081                           |
| Totals .. .. .                     | 954,396                            | 98,291   | 2,757        | 1,323                        | 102,371 | 1,056,767                       |

## DISBURSEMENTS, AND INTEREST DEPRECIATION AND REDEMPTION CHARGED.

| District.                         | DISBURSEMENTS.                     |                          |                        |             |        | INTEREST CHARGED.         |                                    |                                     |                           |                                      | Grand Total at 30th June, 1925. |
|-----------------------------------|------------------------------------|--------------------------|------------------------|-------------|--------|---------------------------|------------------------------------|-------------------------------------|---------------------------|--------------------------------------|---------------------------------|
|                                   | 1924-25.                           |                          |                        |             |        | Total at 30th June, 1925. | 1924.                              |                                     |                           | (A) DEPRECIATION.<br>(B) REDEMPTION. |                                 |
|                                   | 1st May, 1906, to 30th June, 1924. | Repairs and Maintenance. | Distribution of Water. | Management. | Total. |                           | 1st May, 1906, to 30th June, 1924. | 1st July, 1924, to 30th June, 1925. | Total at 30th June, 1925. |                                      |                                 |
| £                                 | £                                  | £                        | £                      | £           | £      | £                         | £                                  | £                                   | £                         | £                                    |                                 |
| 1. Birchip .. .. .                |                                    |                          |                        |             |        |                           |                                    |                                     |                           |                                      |                                 |
| 2. Sea Lake .. .. .               |                                    |                          |                        |             |        |                           |                                    |                                     |                           |                                      |                                 |
| 3. Tyrrell .. .. .                | 111,493                            | 6,620                    | 5,193                  | 1,505       | 13,318 | 124,811                   | 147,180                            | 15,225                              | 162,405                   |                                      | 287,216                         |
| 4. Wycheproof .. .. .             |                                    |                          |                        |             |        |                           |                                    |                                     |                           |                                      |                                 |
| 5. Carwarp .. .. .                | 8,219                              | 582                      | 1,276                  | 71          | 1,929  | 10,148                    | 3,476                              | 636                                 | 4,112                     | A 586                                | 14,846                          |
| 6. Carwarp Central .. .. .        |                                    | 12                       | 272                    | 41          | 325    | 325                       |                                    | 75                                  | 75                        |                                      | 400                             |
| 7. Karkaroo .. .. .               | 38,099                             | 2,689                    | 1,069                  | 338         | 4,096  | 42,195                    | 63,199                             | 7,797                               | 71,056                    |                                      | 113,191                         |
| 8. Kerang N.W. Lakes .. .. .      | 1,031                              | 15                       | 81                     | 21          | 117    | 1,148                     | 867                                | 75                                  | 942                       |                                      | 2,090                           |
| 9. Long Lake .. .. .              | 64,972                             | 1,413                    | 2,611                  | 378         | 4,402  | 69,374                    | 32,361                             | 4,614                               | 36,975                    | A 8,305                              | 114,654                         |
| 10. Mornington Peninsula .. .. .  | 2,939                              | 306                      | 11                     | 55          | 375    | 3,314                     | 14,978                             | 3,174                               | 18,152                    |                                      | 21,466                          |
| 11. Tyntynder .. .. .             | 30,032                             | 1,452                    | 1,541                  | 142         | 3,433  | 33,467                    | 31,395                             | 4,254                               | 35,649                    |                                      | 69,116                          |
| 12. Upper Western Wimmera .. .. . | 18,555                             | 317                      | 889                    | 122         | 1,328  | 19,883                    | 16,963                             | 2,472                               | 19,435                    | A 600<br>B 1,500                     | 41,421                          |
| 13. Upper Wimmera Untd. .. .. .   | 24,998                             | 416                      | 730                    | 137         | 1,283  | 26,281                    | 37,777                             | 4,595                               | 42,372                    | B 2,390                              | 71,043                          |
| 14. Walpeup East .. .. .          | 3,646                              | 141                      |                        | 80          | 221    | 3,870                     | 1,722                              | 225                                 | 1,947                     |                                      | 5,817                           |
| 15. Walpeup West .. .. .          | 9,949                              | 912                      | 118                    | 125         | 1,155  | 11,104                    | 3,992                              | 951                                 | 1,943                     | A 1,200                              | 17,247                          |
| 16. Werribee .. .. .              | 1,097                              | 123                      | 130                    | 53          | 306    | 1,403                     | 3,170                              | 575                                 | 3,745                     |                                      | 5,148                           |
| 17. Western Wimmera .. .. .       | 74,216                             | 1,266                    | 3,556                  | 488         | 5,316  | 79,526                    | 62,266                             | 7,211                               | 69,477                    | A 2,422<br>B 5,400                   | 156,825                         |
| 18. Wimmera United .. .. .        | 59,691                             | 969                      | 1,702                  | 319         | 2,990  | 62,681                    | 84,577                             | 10,895                              | 95,422                    | 65,310                               | 163,413                         |
| 19. Yelta .. .. .                 | 824                                | 33                       | 201                    | 25          | 259    | 1,083                     | 888                                | 156                                 | 1,044                     |                                      | 2,127                           |
| Totals .. .. .                    | 449,761                            | 17,269                   | 19,383                 | 4,200       | 40,852 | 190,613                   | 501,761                            | 62,930                              | 567,751                   | 27,719                               | 1,086,023                       |

## DISTRICTS HELD IN TRUST BY THE COMMISSION.

STATEMENT OF RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDED 31ST DECEMBER, 1924.

## RECEIPTS.

| Name of Trust.                         | Bank Balance, at 31st December, 1923. | 1924.  |              |                             |        | Grand Total, 31st December, 1924. |
|--|---------------------------------------|--------|--------------|-----------------------------|--------|-----------------------------------|
|  |                                       | Rates. | Water Sales. | Interest and Miscellaneous. | Total. |                                   |
|  | £                                     | £      | £            | £                           | £      | £                                 |
| Avoca .. .. .                          | Cr. 82                                | 707    | 130          | 15                          | 852    | 934                               |
| Avoca (Quambatook, Urban) .. .. .      | Cr. 83                                | 427    | 103          |                             | 530    | 613                               |
| Carruth .. .. .                        | Cr. 329                               | 1,956  |              | 31                          | 1,987  | 2,316                             |
| Loddon United .. .. .                  | Dr. 351                               | 2,547  | 20           | 19                          | 2,586  | 2,235                             |
| Loddon United (Mitiamo, Urban) .. .. . | Cr. 79                                | 142    | 112          | 13                          | 267    | 346                               |
| Totals .. .. .                         | Cr. 573<br>Dr. 351                    | 5,779  | 365          | 78                          | 6,222  | 6,444                             |

## DISBURSEMENTS.

| Name of Trust.                         | 1924.                    |                     |             |        | Interest | (A) Depreciation.<br>(B) Redemption. | Grand Total, 31st December, 1924. | Bank Balance carried forward, 1st January, 1925. |
|--|--------------------------|---------------------|-------------|--------|----------|--------------------------------------|-----------------------------------|--|
|  | Repairs and Maintenance. | Water Distribution. | Management. | Total. |          |                                      |                                   |  |
|  | £                        | £                   | £           | £      | £        | £                                    | £                                 |  |
| Avoca .. .. .                          | 416                      |                     | 159         | 575    | 232      | B 86                                 | 893                               | Cr. 41   |
| Avoca (Quambatook, Urban) .. .. .      | 207                      | 71                  | 53          | 331    | 146      | A 60<br>B 27                         | 564                               | Cr. 49   |
| Carruth .. .. .                        | 908                      |                     | 131         | 1,039  | 700      | n 169                                | 1,908                             | Cr. 408  |
| Loddon United .. .. .                  | 783                      | 587                 | 317         | 1,687  | 680      | B 249                                | 2,616                             | Dr. 381  |
| Loddon United (Mitiamo, Urban) .. .. . | 101                      |                     | 25          | 126    | 127      | A 28<br>B 10                         | 291                               | Cr. 55   |
| Totals .. .. .                         | 2,415                    | 658                 | 685         | 3,758  | 1,885    | A 88<br>B 541                        | 6,272                             | Cr. 553<br>Dr. 381                               |

## URBAN DISTRICTS

STATEMENT of Moneys received and disbursed from 1st May, 1906, to 30th June, of Depreciation and Redemption charged, as at 30th June, 1925. (Free Head-works

## RECEIPTS.

| District or Division.       | 1st May,<br>1906,<br>to<br>30th June,<br>1924. | 1924-25 |              |                                     |        | Grand<br>Total at 30th<br>June, 1925. |
|-----------------------------|--|---------|--------------|-------------------------------------|--------|---------------------------------------|
|                             |  | Rates   | Water Sales. | Interest and<br>Miscel-<br>laneous. | Total. |                                       |
|                             | £  | £       | £            | £                                   | £      | £                                     |
| 1. Bacchus Marsh .. .. .    | 17,008   | 836     | 607          | 14                                  | 1,457  | 18,465                                |
| 2. Berriwillock .. .. .     | 1,410  | 238     | 1            | 5                                   | 245    | 1,655                                 |
| 3. Berwick .. .. .          | 317  | 331     | ..           | 19                                  | 350    | 667                                   |
| 4. Beulah .. .. .           | 5,152  | 482     | 78           | 25                                  | 585    | 5,737                                 |
| 5. Birchip .. .. .          | 12,711   | 537     | 342          | 60                                  | 939    | 13,650                                |
| 6. Bittern .. .. .          | 135  | 41      | 59           | 2                                   | 102    | 237                                   |
| 7. Brim .. .. .             | ..   | 172     | ..           | 2                                   | 174    | 174                                   |
| 8. Carrum .. .. .           | 8,395  | 4,962   | 240          | 242                                 | 5,444  | 13,839                                |
| 9. Cokuna .. .. .           | 5,322  | 677     | 177          | 43                                  | 897    | 6,219                                 |
| 10. Corop .. .. .           | 416  | 41      | ..           | 1                                   | 42     | 458                                   |
| 11. Cranbourne .. .. .      | 412  | 246     | 1,003        | 10                                  | 1,259  | 1,671                                 |
| 12. Culgoa .. .. .          | 1,358  | 160     | 36           | 9                                   | 205    | 1,563                                 |
| 13. Dandenong .. .. .       | 11,207   | 3,064   | 846          | 198                                 | 4,108  | 15,315                                |
| 14. Dimboola .. .. .        | 22,808   | 896     | 642          | 115                                 | 1,653  | 24,461                                |
| 15. Frankston .. .. .       | 6,240  | 2,225   | 264          | 87                                  | 2,576  | 8,816                                 |
| 16. Hopetoun .. .. .        | 5,388  | 484     | 179          | 26                                  | 689    | 6,077                                 |
| 17. Jeparit .. .. .         | 6,812  | 608     | 143          | 12                                  | 763    | 7,575                                 |
| 18. Jung Jung .. .. .       | 786  | 103     | 12           | ..                                  | 115    | 901                                   |
| 19. Koondrook .. .. .       | 4,156  | 398     | 20           | 5                                   | 423    | 4,579                                 |
| 20. Lake Boga .. .. .       | 3,527  | 313     | 16           | 20                                  | 349    | 3,876                                 |
| 21. Lascelles .. .. .       | 1,017  | 120     | 12           | 16                                  | 148    | 1,165                                 |
| 22. Leitchville .. .. .     | ..   | 251     | ..           | ..                                  | 251    | 251                                   |
| 23. Manangatang .. .. .     | ..   | 297     | ..           | ..                                  | 297    | 297                                   |
| 24. Merbein .. .. .         | 2,694  | 1,059   | 99           | 76                                  | 1,234  | 3,928                                 |
| 25. Minyip .. .. .          | 7,648  | 624     | 42           | 8                                   | 674    | 8,322                                 |
| 26. Mornington .. .. .      | 4,348  | 1,916   | 114          | 35                                  | 2,065  | 6,413                                 |
| 27. Natimuk .. .. .         | 7,036  | 250     | 217          | 2                                   | 478    | 7,514                                 |
| 28. Nyah .. .. .            | 455  | 82      | ..           | ..                                  | 82     | 537                                   |
| 29. Nyah West .. .. .       | ..   | 583     | ..           | 2                                   | 585    | 585                                   |
| 30. Ouyen .. .. .           | 5,748  | 880     | 545          | 45                                  | 1,470  | 7,218                                 |
| 31. Piangil .. .. .         | ..   | 350     | ..           | ..                                  | 350    | 350                                   |
| 32. Rainbow .. .. .         | 10,755   | 755     | 202          | 36                                  | 993    | 11,748                                |
| 33. Red Cliffs .. .. .      | ..   | 699     | 81           | ..                                  | 780    | 780                                   |
| 34. Rupanyup .. .. .        | 6,332  | 542     | 76           | 22                                  | 640    | 6,972                                 |
| 35. Sea Lake .. .. .        | 7,385  | 626     | 154          | 57                                  | 837    | 8,222                                 |
| 36. Somerville .. .. .      | 312  | 174     | 12           | 2                                   | 188    | 500                                   |
| 37. South Frankston .. .. . | 1,755  | 905     | 2            | ..                                  | 907    | 2,662                                 |
| 38. Spring Vale .. .. .     | ..   | 556     | ..           | 98                                  | 654    | 654                                   |
| 39. Ultima .. .. .          | 3,509  | 442     | 17           | 22                                  | 481    | 3,990                                 |
| 40. Watchem .. .. .         | 2,458  | 288     | 28           | 2                                   | 318    | 2,776                                 |
| 41. Werribee .. .. .        | 8,219  | 1,194   | 186          | 27                                  | 1,407  | 9,626                                 |
| 42. Wonthaggi .. .. .       | 46,815   | 2,394   | 1,175        | 71                                  | 3,580  | 50,395                                |
| 43. Woomelang .. .. .       | 7,054  | 309     | 454          | 21                                  | 784    | 7,838                                 |
| 44. Wycheproof .. .. .      | 7,689  | 501     | 118          | 37                                  | 656    | 8,345                                 |
| Totals .. .. .              | 244,789  | 32,620  | 8,130        | 1,475                               | 42,234 | 287,023                               |

## AND DIVISIONS.

1925; and of Interest charged, at the rate of 4 per cent. on Capital Debts; and also excluded)

## DISBURSEMENTS, AND INTEREST DEPRECIATION AND REDEMPTION CHARGED.

| District or Division.  | DISBURSEMENTS.                        |                             |                           |              |                              | INTEREST CHARGED.                     |  |                              |                | DEPRECIATION.<br>(a) DEPRECIATION.<br>(b) REDEMPTION. | Grand Total at<br>30th June, 1925. |
|------------------------|---------------------------------------|-----------------------------|---------------------------|--------------|------------------------------|---------------------------------------|--|------------------------------|----------------|---|------------------------------------|
|                        | 1st May, 1906, to<br>30th June, 1924. | 1924-25.                    |                           |              | Total at 30th<br>June, 1925. | 1st May, 1906, to<br>30th June, 1924. | 1st July, 1924, to<br>30th June, 1925. | Total at 30th<br>June, 1925. |                |   |                                    |
|                        |                                       | Repairs and<br>Maintenance. | Distribution<br>of Water. | Management.  |                              |                                       |  |                              | Total.         |   |                                    |
| £                      | £                                     | £                           | £                         | £            | £                            | £                                     | £                                      | £                            | £              | £   |                                    |
| 1. Bacchus Marsh ..    | 4,638                                 | 116                         | 244                       | 106          | 466                          | 5,104                                 | 11,762                                 | 1,092                        | 12,854         | (a)(b) 650  | 18,608                             |
| 2. Berriwillock ..     | 800                                   | 176                         | 25                        | 36           | 237                          | 1,037                                 | 526                                    | 63                           | 589            | (a) 43  | 1,669                              |
| 3. Berwick ..          | 51                                    | 27                          | 1                         | 7            | 35                           | 86                                    | 266                                    | 315                          | 581            | ..  | 667                                |
| 4. Beulah ..           | 2,096                                 | 54                          | 157                       | 49           | 260                          | 2,356                                 | 3,028                                  | 235                          | 3,263          | (a) 48  | 5,667                              |
| 5. Birchip ..          | 5,935                                 | 129                         | 216                       | 124          | 469                          | 6,404                                 | 5,982                                  | 359                          | 6,341          | (a)(b) 784  | 13,529                             |
| 6. Bittern ..          | 31                                    | 9                           | 1                         | 7            | 17                           | 48                                    | 104                                    | 85                           | 189            | ..  | 237                                |
| 7. Brim ..             | ..                                    | 27                          | 1                         | 35           | 63                           | 63                                    | ..                                     | 100                          | 100            | ..  | 163                                |
| 8. Carrum ..           | 1,684                                 | 486                         | 21                        | 328          | 835                          | 2,519                                 | 7,071                                  | 4,269                        | 11,340         | ..  | 13,859                             |
| 9. Cohuna ..           | 1,449                                 | 10                          | 89                        | 80           | 179                          | 1,628                                 | 3,327                                  | 565                          | 3,892          | (a)(b) 412  | 5,932                              |
| 10. Corop ..           | 183                                   | ..                          | 10                        | 6            | 16                           | 199                                   | 198                                    | 19                           | 217            | (a) 30  | 446                                |
| 11. Cranbourne ..      | 102                                   | 108                         | 5                         | 48           | 161                          | 203                                   | 300                                    | 998                          | 1,298          | ..  | 1,561                              |
| 12. Culgoa ..          | 739                                   | 40                          | 27                        | 36           | 103                          | 842                                   | 732                                    | 83                           | 815            | (a) 33  | 1,690                              |
| 13. Dandenong ..       | 2,586                                 | 369                         | 16                        | 289          | 674                          | 3,260                                 | 8,136                                  | 3,019                        | 11,155         | (a) 500   | 14,915                             |
| 14. Dimboola ..        | 14,222                                | 313                         | 756                       | 118          | 1,187                        | 15,409                                | 6,068                                  | 383                          | 6,451          | (a) 1,620<br>(b) 830                                  | 24,310                             |
| 15. Frankston ..       | 1,287                                 | 234                         | 10                        | 167          | 411                          | 1,698                                 | 4,953                                  | 1,965                        | 6,918          | ..  | 8,616                              |
| 16. Hopetoun ..        | 3,420                                 | 107                         | 226                       | 43           | 376                          | 3,796                                 | 2,458                                  | 278                          | 2,736          | (b) 150   | 6,682                              |
| 17. Jeparit ..         | 1,461                                 | 70                          | 41                        | 60           | 171                          | 1,632                                 | 4,422                                  | 444                          | 4,866          | (b) 400   | 6,898                              |
| 18. Jung Jung ..       | 639                                   | 9                           | 25                        | 31           | 65                           | 704                                   | 263                                    | 46                           | 309            | ..  | 1,013                              |
| 19. Koondrook ..       | 2,055                                 | 34                          | 149                       | 38           | 221                          | 2,276                                 | 1,788                                  | 179                          | 1,967          | (a) 195   | 4,438                              |
| 20. Lake Boga ..       | 1,255                                 | 18                          | 127                       | 32           | 177                          | 1,432                                 | 2,092                                  | 158                          | 2,250          | (a)(b) 246  | 3,928                              |
| 21. Lascelles ..       | 600                                   | 21                          | 17                        | 36           | 74                           | 674                                   | 645                                    | 69                           | 714            | (a) 80  | 1,468                              |
| 22. Leitchville ..     | ..                                    | 10                          | 10                        | 35           | 55                           | 55                                    | ..                                     | 184                          | 184            | ..  | 239                                |
| 23. Manangatang ..     | ..                                    | 21                          | 41                        | 16           | 108                          | 108                                   | ..                                     | 171                          | 173            | ..  | 281                                |
| 24. Merbein ..         | 1,257                                 | 106                         | 370                       | 92           | 568                          | 1,825                                 | 1,263                                  | 625                          | 1,888          | (a) 150   | 3,863                              |
| 25. Minyip ..          | 2,082                                 | 30                          | 534                       | 41           | 605                          | 2,687                                 | 4,507                                  | 479                          | 4,977          | (a) 371   | 8,035                              |
| 26. Mornington ..      | 850                                   | 183                         | 8                         | 99           | 290                          | 1,140                                 | 3,561                                  | 1,476                        | 5,037          | ..  | 6,177                              |
| 27. Natimuk ..         | 1,393                                 | 36                          | 65                        | 92           | 193                          | 1,586                                 | 4,772                                  | 305                          | 5,077          | (b) 750   | 7,413                              |
| 28. Nyah ..            | 169                                   | 5                           | 17                        | 19           | 41                           | 210                                   | 165                                    | 57                           | 220            | (a) 44  | 474                                |
| 29. Nyah West ..       | ..                                    | 39                          | 25                        | 58           | 122                          | 122                                   | ..                                     | 418                          | 418            | ..  | 540                                |
| 30. Ouyen ..           | 3,047                                 | 151                         | 253                       | 106          | 510                          | 3,557                                 | 3,187                                  | 693                          | 3,880          | (a) 150   | 7,587                              |
| 31. Piangil ..         | ..                                    | 10                          | 25                        | 47           | 82                           | 82                                    | ..                                     | 254                          | 254            | ..  | 336                                |
| 32. Rainbow ..         | 2,207                                 | 69                          | 26                        | 71           | 166                          | 2,373                                 | 6,936                                  | 522                          | 7,458          | a, b 1,240  | 11,071                             |
| 33. Red Cliffs ..      | ..                                    | 50                          | 370                       | 55           | 475                          | 475                                   | ..                                     | 291                          | 291            | ..  | 766                                |
| 34. Rupanyup ..        | 2,477                                 | 38                          | 29                        | 41           | 108                          | 2,585                                 | 3,306                                  | 236                          | 3,542          | (a)(b) 536  | 6,663                              |
| 35. Sea Lake ..        | 4,625                                 | 82                          | 431                       | 69           | 582                          | 5,207                                 | 2,181                                  | 187                          | 2,368          | (a) 474   | 8,049                              |
| 36. Somerville ..      | 63                                    | 18                          | 7                         | 6            | 25                           | 88                                    | 249                                    | 210                          | 459            | ..  | 547                                |
| 37. South Frankston .. | 322                                   | 81                          | 3                         | 12           | 96                           | 418                                   | 1,433                                  | 730                          | 2,163          | ..  | 2,581                              |
| 38. Spring Vale ..     | ..                                    | 54                          | 3                         | 12           | 69                           | 69                                    | ..                                     | 526                          | 526            | ..  | 596                                |
| 39. Ultima ..          | 1,511                                 | 78                          | 19                        | 34           | 131                          | 1,642                                 | 1,931                                  | 136                          | 2,067          | (a) 120   | 3,829                              |
| 40. Watehem ..         | 757                                   | 99                          | 27                        | 41           | 167                          | 924                                   | 1,622                                  | 172                          | 1,794          | (a) 100   | 2,818                              |
| 41. Werribee ..        | 2,797                                 | 67                          | 468                       | 82           | 617                          | 3,414                                 | 5,086                                  | 594                          | 5,680          | (a) 441   | 9,535                              |
| 42. Wonthaggi ..       | 6,651                                 | 221                         | 387                       | 249          | 857                          | 7,508                                 | 31,993                                 | 2,293                        | 34,286         | (b) 8,000   | 49,794                             |
| 43. Woomelang ..       | 2,393                                 | 92                          | 110                       | 68           | 270                          | 2,663                                 | 4,187                                  | 373                          | 4,560          | (a) 240   | 7,463                              |
| 44. Wycheproof ..      | 4,105                                 | 12                          | 199                       | 69           | 280                          | 4,385                                 | 3,385                                  | 301                          | 3,686          | (a) 476   | 8,547                              |
| <b>Totals</b> ..       | <b>81,939</b>                         | <b>3,909</b>                | <b>5,585</b>              | <b>3,120</b> | <b>12,614</b>                | <b>94,553</b>                         | <b>143,885</b>                         | <b>25,948</b>                | <b>169,833</b> | <b>19,113</b>   | <b>283,499</b>                     |

## LOAN EXPENDITURE.

STATEMENT OF LOAN EXPENDITURE DURING THE YEAR ENDED 30TH JUNE, 1925.

| Works.   | Loans Application Act No. 3300. | Loans Application Act No. 3364 and other Sources. | Total.         |
|--|---------------------------------|---|----------------|
|  | £ s. d.                         | £ s. d.   | £ s. d.        |
| <i>Free Headworks.</i>   |                                 |   |                |
| 1. Kerang North-West Lakes .. .. .   | 372 10 6                        | 1,373 9 0   | 1,745 19 6     |
| <i>River Murray Waters Acts—Works.</i>   |                                 |   |                |
| 2. Storages, Weirs and Locks .. .. .   | 86,813 5 3                      | 111,501 13 9                                      | 198,314 19 0   |
| <i>Reservoirs and Storages.</i>  |                                 |   |                |
| 3. Goulburn Storages—  |                                 |   |                |
| Sugarloaf Reservoir .. .. .  | 36,269 10 5                     | 75,156 11 1                                       | 111,426 1 6    |
| Waranga Reservoir Enlargement .. .. .  | 22,009 19 2                     | 51,756 7 11                                       | 73,766 7 1     |
| 4. Maffra, Glenmaggie Reservoir .. .. .  | 8,092 6 2                       | 212,991 14 1                                      | 221,087 0 3    |
| 5. Melton Reservoir .. .. .  | 91 11 5                         | 219 8 2   | 313 19 7       |
| 6. Pykes Creek Reservoir .. .. .   | 329 11 9                        | 639 9 2   | 969 0 11       |
| 7. Wimmera-Mallee Storages—  |                                 |   |                |
| Pine Lake .. .. .  | 351 15 9                        | 25,347 11 10                                      | 25,699 7 7     |
| Taylors Lake .. .. .   | 12 17 11                        | 8,833 5 1   | 8,846 3 0      |
| Fyans Lake .. .. .   | ..                              | 119 2 4   | 119 2 4        |
| <i>Waterworks Districts.</i>   |                                 |   |                |
| 8. Birchip, Sea Lake, Tyrrell, and Wycheproof .. .. .                                | 269 12 9                        | 38,914 1 4  | 39,183 14 1    |
| 9. Carwarp and Carwarp Central .. .. .   | 84 9 9                          | 3,893 6 10  | 3,977 16 7     |
| 10. Karkaroo .. .. .   | 47 8 1                          | 3,962 3 11  | 4,009 12 0     |
| 11. Long Lake .. .. .  | 9 17 7                          | 3,674 18 8  | 3,684 16 3     |
| 12. Millewa .. .. .  | 10,128 14 5                     | 22,028 10 11                                      | 38,157 5 4     |
| 13. Mornington Peninsula .. .. .   | 1,418 2 2                       | 47,430 15 9                                       | 48,848 17 11   |
| 14. Tyntynder .. .. .  | 252 15 2                        | 12,245 8 3  | 12,498 3 5     |
| 15. Walpeup East and Walpeup West .. .. .  | 965 9 4                         | 2,137 12 1  | 3,103 1 8      |
| 16. Werribee .. .. .   | 2 9 0                           | 249 2 1   | 251 2 1        |
| 17. Western Wimmera .. .. .  | 38 15 11                        | 7,349 6 9   | 7,388 2 8      |
| 18. Wimmera United .. .. .   | 149 7 2                         | 5,834 11 9  | 5,984 1 11     |
| 19. Wimmera Main Channels .. .. .  | 305 17 1                        | 43,960 3 9  | 44,266 0 10    |
| 20. Yelta .. .. .  | ..                              | 390 8 0   | 390 8 0        |
| <i>Towns.</i>  |                                 |   |                |
| 21. Bacchus Marsh and Werribee .. .. .   | 560 0 11                        | 595 2 9   | 1,155 3 8      |
| 22. Berrillock, Beulah, Birchip, and Brim .. .. .                                    | 52 1 0                          | 1,053 3 2   | 1,105 4 2      |
| 23. Cohuna .. .. .   | 18 4 2                          | 251 3 11  | 269 8 1        |
| 24. Coliban .. .. .  | 1,089 16 0                      | 18,121 13 5                                       | 19,511 9 5     |
| 25. Cudgaa, Dimboola, Dungee, and Hopetoun .. .. .                                   | 385 12 2                        | 945 8 8   | 1,331 0 10     |
| 26. Jeparit, Koondrook, Lake Boga, and Lascelles .. .. .                             | ..                              | 1,285 6 0   | 1,289 6 0      |
| 27. Lalbert, Leitchville, and Lockington .. .. .                                     | ..                              | 2,018 0 7   | 2,018 0 7      |
| 28. Manangatang, Merbein, and Minyip .. .. .   | 227 9 10                        | 2,291 5 9   | 2,521 15 7     |
| 29. Natimuk, Nyah West, Piangil, and Ouyen .. .. .                                   | 35 2 11                         | 3,168 9 11  | 3,503 12 10    |
| 30. Rainbow, Red Cliffs, Rupanyup, and Sea Lake .. .. .                              | 7 4 2                           | 2,365 18 6  | 2,373 2 8      |
| 31. Stanhope, Ultima, and Waitchie .. .. .   | 103 3 6                         | 1,069 1 9   | 1,172 5 3      |
| 32. Watchem, Woomelang and Wycheproof .. .. .  | 235 19 0                        | 103 1 10  | 639 0 10       |
| 33. Wonthaggi .. .. .  | 2 15 0                          | 215 6 1   | 218 1 1        |
| <i>Irrigation and Water Supply Districts.</i>  |                                 |   |                |
| 34. Bacchus Marsh and Werribee .. .. .   | 2,228 12 3                      | 5,812 19 10                                       | 8,041 12 1     |
| 35. Boort .. .. .  | 112 15 1                        | 1,772 16 3  | 1,915 11 4     |
| 36. Campaspe .. .. .   | ..                              | 3 18 6  | 3 18 6         |
| 37. Cohuna .. .. .   | 2,085 15 0                      | 9,109 18 10                                       | 11,195 13 10   |
| 38. Deakin .. .. .   | 33 6 8                          | 575 11 2  | 608 17 10      |
| 39. Dungee .. .. .   | 1 17 6                          | 197 12 11   | 199 10 5       |
| 40. Echuea North .. .. .   | 538 14 5                        | 663 8 3   | 1,202 2 8      |
| 41. Gannawarra .. .. .   | 338 8 8                         | 10,102 3 6  | 10,440 12 2    |
| 42. Kerang .. .. .   | 387 8 10                        | 3,915 12 5  | 4,303 1 3      |
| 43. Koondrook .. .. .  | 1,670 8 8                       | 24,351 3 2  | 26,021 11 10   |
| 44. Leitchville .. .. .  | 3,689 14 3                      | 6,969 3 7   | 10,658 17 10   |
| 45. Merbein .. .. .  | C. 20 0 0                       | 6,605 2 9   | 6,585 2 9      |
| 46. Mystic Park .. .. .  | 65 8 1                          | 658 2 4   | 723 10 5       |
| 47. Nyah .. .. .   | 2,101 0 0                       | 5,118 18 2  | 7,519 18 3     |
| 48. Red Cliffs .. .. .   | C. 256 9 8                      | 110,687 8 1                                       | 110,430 18 8   |
| 49. Red Cliffs—Clearing land charged to Discharged Soldiers' Settlement Fund .. .. . | ..                              | 4,388 15 2  | 4,388 15 2     |
| 50. Rochester .. .. .  | 4,081 4 7                       | 6,891 8 2   | 10,972 12 9    |
| 51. Rodney .. .. .   | 8,315 15 3                      | 27,630 2 6  | 35,945 17 9    |
| 52. Shepparton .. .. .   | 1,238 10 11                     | 6,321 7 2   | 7,559 18 1     |
| 53. Stanhope .. .. .   | 809 6 4                         | 1,843 16 5  | 2,653 2 9      |
| 54. Swan Hill .. .. .  | 3,611 14 2                      | 12,238 12 3                                       | 15,850 6 5     |
| 55. Tongala .. .. .  | 3,102 19 1                      | 3,471 9 2   | 6,574 8 3      |
| 56. Tragowel Plains .. .. .  | 47 17 5                         | 8,454 3 9   | 8,502 1 2      |
| 57. Tresco .. .. .   | 2,595 18 4                      | 5,407 3 8   | 8,003 2 0      |
| 58. Goulburn Main Channels .. .. .   | 32,128 17 10                    | 148,587 10 8                                      | 180,716 8 6    |
| <i>Flood Protection and Drainage Districts.</i>                                      |                                 |   |                |
| 59. Gippsland Rivers and Other Districts .. .. .                                     | 857 13 3                        | 5,401 15 5  | 6,259 8 8      |
| 60. Goulburn Levees .. .. .  | 2,591 10 4                      | 15,113 6 1  | 17,704 16 5    |
| 61. Hallam .. .. .   | 68 14 9                         | 4,093 11 4  | 4,162 6 1      |
| 62. Kooweerup and Cardinia .. .. .   | 6,598 15 4                      | 31,172 9 11                                       | 37,771 5 3     |
| <i>Miscellaneous.</i>  |                                 |   |                |
| 63. Investigations Storages and Works .. .. .  | 431 13 8                        | 3,126 1 7   | 3,557 15 3     |
| 64. Torrumbarry Districts—New Districts commanded by Torrumbarry Weir .. .. .        | 4,451 4 8                       | 16,998 7 9  | 21,449 12 5    |
| Totals .. .. .   | 260,705 2 1                     | 1,202,656 9 2                                     | 1,463,361 11 3 |

STATEMENT OF EXPENDITURE DURING THE YEAR ENDED 30TH JUNE, 1925.

CONSTRUCTION OF TANKS AND FORMING ROADS IN THE MALLEE.

(This Expenditure was met by the Public Works Department.)

|  | £      | s. | d. |
|--|--------|----|----|
| 1. Mallee Tanks (Public Tanks) .. .. . | 12,792 | 1  | 8  |
| 2. Clearing Roads .. .. .              | 15,775 | 8  | 1  |
| Total .. .. .                          | 58,567 | 9  | 9  |

## ESTIMATES.

Anticipated requirements to meet Disbursements by the Commission and Estimate of the moneys available from its Revenues to provide the same for the year ending 30th June, 1926, with Estimate of the total amount available from the Revenues of all Authorities to meet interest payable by the State for the year ending 30th June, 1926.

## ESTIMATED DISBURSEMENTS.

| A.  |          |
|---|----------|
| Revenue Producing Works—  |          |
| Coliban District .. .. .  | £14,000  |
| Irrigation and Water Supply Districts .. .. .   | 122,000  |
| Waterworks Districts .. .. .  | 50,000   |
| Drainage and Flood Protection Districts .. .. .   | 2,000    |
| Diversions from Streams .. .. .   | 500      |
| General Expenditure and Salaries (proportion) over £250 to be apportioned to above Districts .. .. .                                      | 22,500   |
|   | £211,000 |
| B.  |          |
| Non-Revenue Producing Works—  |          |
| General Services—   |          |
| River Gaugings, Surveys, New Projects, Boring for Water, Land Settlement. General Expenditure and Salaries (proportion) over £250 .. .. . | £11,500  |
| Loan Works, Services on Account defrayed from Votes .. .. .   | 7,500    |
| Waterworks Trusts Administration .. .. .  | 2,500    |
|   | £21,500  |
| C.  |          |
| Non-Revenue Producing Works—  |          |
| Free Headworks—   |          |
| Broken River .. .. .  | £275     |
| Goulburn-Waranga .. .. .  | 1,750    |
| Kow Swamp .. .. .   | 1,750    |
| Lake Lonsdale and Lower Wimmera .. .. .   | 500      |
| Loddon River .. .. .  | 325      |
| North-West Lakes .. .. .  | 400      |
|   | 5,000    |
|   | £237,500 |

## ESTIMATED RECEIPTS.

|  |          |
|--|----------|
| Coliban District .. .. .   | £40,000  |
| Irrigation and Water Supply Districts .. .. .  | 187,000  |
| Waterworks Districts .. .. .   | 132,000  |
| Flood Protection Districts .. .. .   | 5,000    |
| Miscellaneous .. .. .  | 18,000   |
|  | £382,000 |
| Estimated amount available from Revenue Producing Works to meet Interest .. .. .           |          |
|  | £171,000 |
| Less expenditure as per "B" and "C" above on Non-Revenue Producing Works .. .. .           |          |
|  | 26,500   |
|  | £144,500 |
| To which add Estimated Revenues from other Authorities—                                    |          |
| Waterworks Trusts .. .. .  | £44,500  |
| Local Bodies .. .. .   | 25,000   |
|  | £69,500  |
| Total Estimated amount available from Revenues of all Authorities to meet Interest .. .. . |          |
|  | £214,000 |

STATEMENT OF LOAN LIABILITY.

STATEMENT of the amount provided by the State to meet Interest on its Loan Expenditure for Works of Water Supply, both State Works of Water Supply and Works vested in Authorities other than the Commission; and of the sums paid from the revenues of the Commission, and from the moneys received from such other Authorities, to provide such Interest for the year ended 30th June, 1925:—






| Works.  | Loan Liability of State for Works of Water Supply at 30th June, 1925, exclusive of Melbourne Water Supply. |                           |               |  | Total Interest of £6830,537 debitable to— |  |  |                                   | Amount received from Revenues of all Authorities to meet Interest                             |
|---|--|---------------------------|---------------|--|---|--|--|-----------------------------------|---|
|   | Total Advances, including Cost of Loan Flotation.  | Deducted Redemption Paid. | Not Advances. | (A.) Amounts Written Off, (B.) Free Head-works, (C.) Uncompleted Works, (D.) Loans Unexpended. | Balance at Debit of Authorities.          | Interest payable by State on Not Advances. | (A.) Written Off, (B.) Free Head-works, (C.) Uncompleted Works, (D.) Loans Unexpended. | Commission and Other Authorities. |   |
| Waterworks Districts .. .. .  | £ 3,522,016  | £ 45,113                  | £ 3,476,903   | £ 175,055  | £ 3,301,848                               | £ 139,125                                  | £ 7,005  | £ 132,120                         |   |
| Irrigation and Water Supply Districts .. .. .   | 2,825,886  | 20,679                    | 2,805,207     | 575,152  | 2,230,055                                 | 112,248                                    | 23,014   | 89,234                            |   |
| Goulburn Channel Works (Free Headworks excluded) Pykes Creek, Melton, and Distributary Works            | 798,817  | 90                        | 798,727       | 310,013  | 488,714                                   | 31,961                                     | 12,405   | 19,556                            | £165,996 (after providing £30,000 for non-revenue producing works including Free Head-works). |
| Mornington Peninsula .. .. .  | 427,801  | ..                        | 427,801       | 39,847   | 115,007                                   | 6,189                                      | 1,587  | 4,602                             |   |
| Kooweerup and Cardinia Flood Protection Schemes .. .. .   | 231,031  | ..                        | 251,431       | 156,531  | 94,500                                    | 10,044                                     | 6,263  | 3,781                             |   |
| Sugarloaf Reservoir and Warana Reservoir Enlargement .. .. .  | 1,684,417  | ..                        | 1,684,417     | 1,684,417  | ..  | 67,400                                     | 67,400   | ..                                |   |
| Mafra Irrigation and Water Supply District .. .. .  | 530,925  | ..                        | 530,925       | 530,925  | ..  | 21,245                                     | 21,245   | ..                                |   |
| Millewa Waterworks District .. .. .   | 185,769  | ..                        | 185,769       | 185,769  | ..  | 7,434                                      | 7,434  | ..                                |   |
| Red Cliffs Irrigation and Water Supply District .. .. .   | 663,878  | ..                        | 663,878       | 663,878  | ..  | 26,564                                     | 26,564   | ..                                |   |
| Waterworks Trusts (including First Mildura) .. .. .   | 1,709,106  | 238,016                   | 1,471,090     | 316,537  | 1,154,553                                 | 58,804                                     | 12,666   | 46,138                            | £72,242   |
| Local Bodies (Municipalities) .. .. .   | 761,959  | 118,755                   | 643,204       | 163,760  | 479,444                                   | 25,737                                     | 6,553  | 19,184                            |   |
| River Murray Agreement Works .. .. .  | 1,027,720  | ..                        | 1,027,720     | 1,027,720  | ..  | 41,123                                     | 41,123   | ..                                |   |
| Irrigation and Waterworks Trusts Abolished .. .. .  | 32,754   | 30                        | 32,724        | 32,724   | ..  | 1,309                                      | 1,309  | ..                                |   |
| Free Headworks .. .. .  | 1,250,832  | 420                       | 1,250,412     | 1,250,412  | ..  | 50,034                                     | 50,034   | ..                                |   |
| Free Grants to Local Authorities .. .. .  | 147,046  | ..                        | 147,046       | 147,046  | ..  | 5,884                                      | 5,884  | ..                                |   |
| Surveys, Exploratory, and Preliminary Works, including Purchase of Land reserved for Reservoirs .. .. . | 190,632  | ..                        | 190,632       | 190,632  | ..  | 7,627                                      | 7,627  | ..                                |   |
| Loan Moneys unexpended .. .. .  | 15,754   | ..                        | 15,754        | 15,754   | ..  | 630  | 630  | ..                                |   |
| Totals .. .. .  | 16,180,997   | 423,103                   | 15,757,894    | 7,481,422  | 8,276,472                                 | 630,537                                    | 269,362  | 331,175                           | 238,238   |

STATE RIVERS AND WATER SUPPLY COMMISSION.

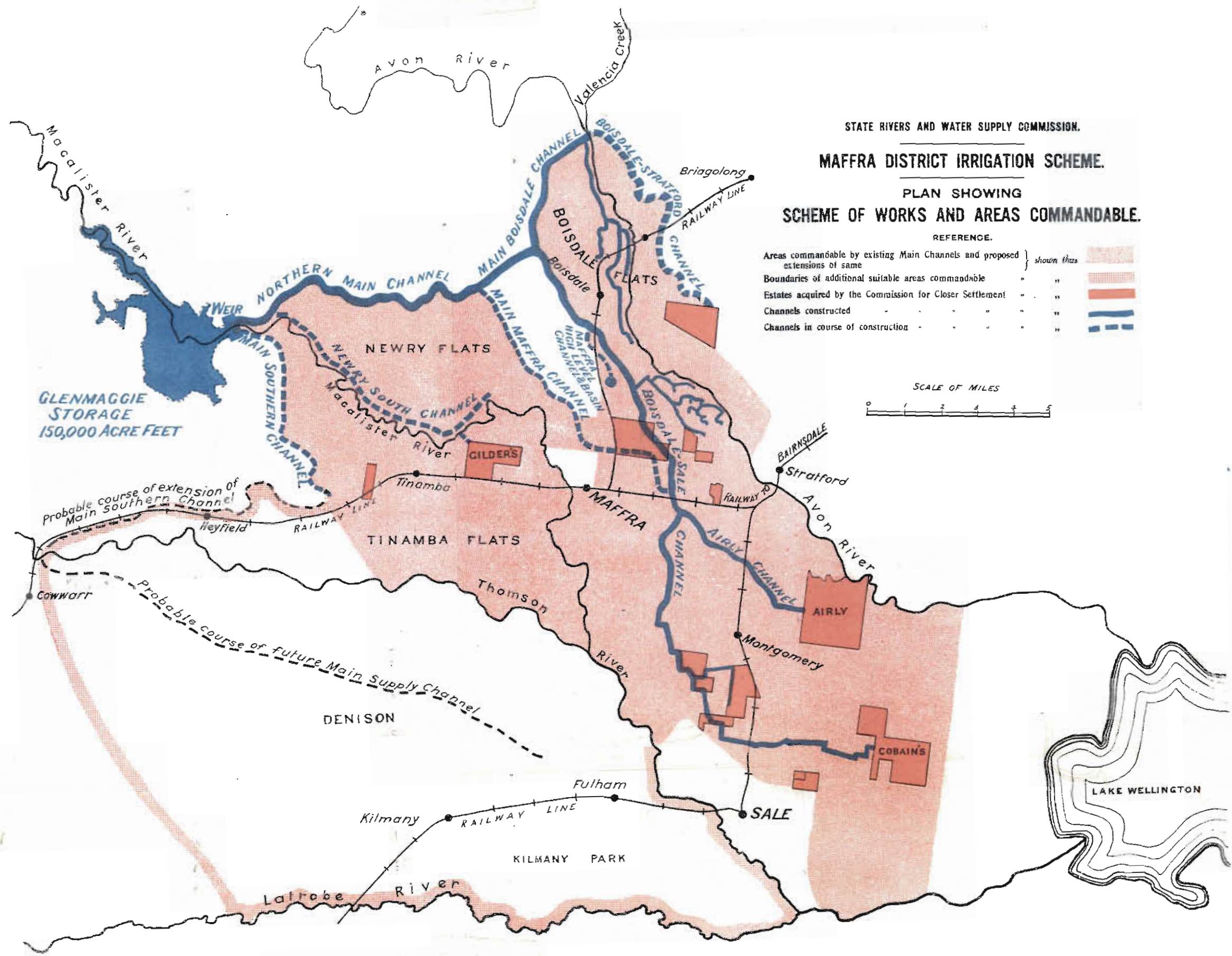
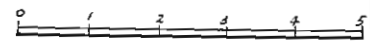
### MAFFRA DISTRICT IRRIGATION SCHEME.

#### PLAN SHOWING SCHEME OF WORKS AND AREAS COMMANDABLE.

REFERENCE.

- |   |              |   |
|---|--------------|---|
| Areas commandable by existing Main Channels and proposed extensions of same | } shown thus |  |
| Boundaries of additional suitable areas commandable                         | "            |  |
| Estates acquired by the Commission for Closer Settlement                    | "            |  |
| Channels constructed  | "            |  |
| Channels in course of construction  | "            |  |

SCALE OF MILES



Dated at the Office of the State Rivers and Water Supply Commission, Treasury  
Gardens, Melbourne, the 26th day of October, 1925.

WM. CATTANACH, Chairman.

J. S. DETMIRIDGE, Commissioner.

E. SHAW, Commissioner.

M. NALLY, Secretary.