

The completed schemes in operation are shown in the following table, the second column showing the area that should have been irrigated had all the rates been forthcoming:—

Scheme.	Area Actually irrigated.	Area that should have been irrigated.	Number of irrigators.
Arrow River	2,618	2,936	45
Ardgour	1,364	1,364	12
Bengerburn	114	144	13
Earnsclough	2,191	2,247	49
Galloway	2,636	2,642	21
Hawkdun	7,844	8,818	64
Idaburn	540	565	7
Ida Valley	11,709	11,729	59
Last Chance	2,313	2,313	31
Manuherekia	4,921	4,941	73
Tarras	2,574	2,675	17
Teviot	3,440	3,791	49
	42,264	44,165	440
Omakau and Dunstan	7,000	..	59
Totals	49,264	..	499

The financial result of the year's working operations is as follows: Revenue, £27,190; working-expenses, £27,054; profit on working, £136.

Included in the working-expenses is the sum of £6,725 for replacement of pipe-line on the Teviot Scheme.

The total amount of rates collected during the year was £24,100, being an increase over the preceding year of £4,418.

The cases of forty-eight irrigators who owed arrears of rates were heard either by the Inter-departmental Committee set up for the purpose or by the Mortgage Adjustment Commission, and settlement reached.

SCHEMES UNDER CONSTRUCTION.

Earnsclough Scheme: Fraser River Dam.—This dam, a concrete arch of 175 ft. radius and 102 ft. in height, was completed in the spring of 1937 and put into commission during the irrigation season. This work involved the placing of 12,560 cubic yards of concrete, and the excavations for foundation required the removal of 8,980 cubic yards of rock. The value of this dam was amply demonstrated during the past dry season, as a steady flow of 35 cusecs to 45 cusecs was maintained, whereas the stream-flow had fallen below 12 cusecs for a period of two months.

Remote control-valve gear is being installed shortly to obviate frequent visits of the racemen to regulate the supply.

Manuherekia Scheme: Manuherekia Tunnel.—This tunnel, which is designed to eliminate a very troublesome section of main race, is 78 chains long, and the driving is now completed.

The concrete lining is completed for a length of 1,700 ft., and a further 2,600 ft. is lined on walls and invert, 820 ft. is through solid country and does not require lining, and has been enlarged and trimmed.

The dismantling of existing flumes, superseded by the tunnel, and the erection of a new flume at the tunnel-outlet, is the only remaining work to be done.

Dunstan Creek Scheme.—This scheme, which commands 3,000 acres above the Omakau Main Race, has been completed. The work consists of 7½ miles of main race, 6 miles of distributaries, and the laying of 3,000 ft. of concrete pipe-lines ranging from 9 in. to 24 in. in diameter. Other works at the intake consist of the intake weir, protective works, silt trap, and 20 chains of concrete-lined race.

Ida Valley Scheme: Extension at German Hill and Hope Creek Diversion.—Work was authorized on a 1,500 acre extension of the above scheme at German Hill.

The permanent survey is completed, and the work is to be put in hand. The water-supply is to be obtained by diverting the flow of Hopes Creek into the existing Ida Valley race system.

General.—The usual work of stream-gauging, collection of meteorological data, and lake-level recording were carried out during the year, and several minor investigations of potential irrigation areas were made.

CANTERBURY.

OPERATION AND MAINTENANCE OF IRRIGATION SCHEMES.

Redcliffs Scheme.—This scheme, comprising 4,603 acres, has now been in operation for two years, and approximately 2,300 acres were irrigated last season.

The winter and spring were very dry, and there was a good demand for water up to the middle of December, when exceptionally wet weather set in and persisted throughout the remainder of the season, and consequently the demand for irrigation water ceased.

Levels Irrigation Scheme.—The only remaining work, the No. 7 lateral, 3 miles 34 chains long, was completed during the year.