

In accordance with instructions received from the Public Works Department, the Department has determined the precise alignment of the proposed Rimutaka Tunnel and also commenced a precise levelling traverse. The alignment was finalized by breaking down from the existing geodetic triangulation station. Six miles of the twenty-two miles of the precise levelling was completed by the end of January, 1947. Owing to staff shortage, this work has since been held up.

Topographical Mapping

The following tables show the progress made in topographical mapping to date :—

1 : 25000 Series

				Area (Square Miles).	Number of Sheets.
Maps published as at 31st March, 1946	..			1,100	28
Maps published during year	..	..	..	15	1
Mapping in hand	..	..	..	1,725	33
Totals	..	..	..	2,840	62

The only field-work completed in this series is special mapping carried out in the Otago District in connection with mining and forestry developments in the Kaitangata and Balclutha locality covering an area of 410 square miles. This work will be plotted at Head Office.

One drawing of a Wellington sheet was published during the year.

1 : 63360 Series

	North Island.		South Island.		Total.	
	Area (Square Miles).	Number of Sheets.	Area (Square Miles).	Number of Sheets.	Area (Square Miles).	Number of Sheets.
Published at 31st March, 1946	17,450	69	24,100	77	41,550	146
Published during the year	150	1	1,568	5	1,718	6
Drawings completed	436	1	436	1	872	2
Mapping in hand	6,245	21	2,946	12	9,191	33
Totals	24,281 (24,181)	92 (92)	29,050 (27,770)	95 (93)	53,331 (53,169)	187 (185)

Last year's returns are shown in parentheses.

Two small parties located in Central Otago and the Thames districts were operating for part of the year. Only 162 square miles were mapped during the year when operations were closed down and staff diverted to other urgent work.

It is regretted that it has become necessary to close down this work, which is of such vital importance to national development. The series are in great demand by all State Departments, serving as a basis for many large development projects.

REGIONAL AND WORKS PLANNING

A small staff at Head Office have proceeded with the preparation of regional survey data, and as a result a number of series of transparencies of population and land slopes have been completed.

All districts are preparing holding-maps and schedules illustrating the extent of land held under individual ownership throughout the Dominion. The work was well advanced at the end of the year, and when completed will be used in connection with land-settlement purchase.