NORTH CANTERBURY CATCHMENT BOARD

Lake Ellesmere was opened twice during the year, in June and July, at a cost of £996. Last year three openings were made costing £1,157. The lake last closed in August, when the water was only 1.4 ft. above mean sea-level. Since then low levels have been maintained, due to the dry weather, by seepage, and by evaporation, which, during the summer, was of the order of 5 in. to 6 in. a month. At the end of the year the lake level stood at 2.7 ft. Lake Forsyth was opened once, in July, at a cost of £121.

This Board pays great attention to the maintenance of its drains and rivers, and has developed several special items of plant for the purpose. In all, 389 miles of drains were cleaned, some more than once, and willows were cleared or layered and protection works

repaired in the Waimakariri, Ashley, Eyre, Cust, and Halswell Rivers.

The Hanmer Road Drain, started previously, has been completed, the work mostly being confined to the finishing of the seventeen drop structures, five road bridges, and ten farm access bridges on the drain. Other drainage works completed were Police Creek, near Little River, and Forsyth's and Osborne's Creeks. The first 7-mile section of the enlarging of Irwell Creek, begun the previous year, was finished, and 4 miles of the second section have been cleared of willows. The improvement of Boggy Creek, 1 mile long, has been completed.

The first phase of the Sefton-Ashley-Saltwater Creek scheme has been completed at a cost of £5,000. This has consisted of clearing willows and channel improvement over a length of 12 miles of Saltwater, Boyne, and Baird's Creeks to improve the drainage

of 4,000 acres of flat land.

Work has been in progress on the Selwyn River for two and a half years. During 1947-48 a cut of 40 chains was made to give a more direct outlet into Lake Ellesmere. The next year 3 miles 60 chains of heavy channel enlargement, stop-banking, and willow-clearing were carried out. During the year under review 2 miles 42 chains have been completed, making 6 miles 62 chains since the inception of the work. Willow-clearing is now the major operation, channel excavation being confined to eliminating excessive curvature; stop-banks, too, are becoming smaller. Expenditure to date has been £27,981, of which £16,885 was spent during 1949-50. The total length to be improved is approximately 20 miles, but after some more heavy willow-clearing, will become very much lighter upstream.

A large scheme for the improvement of drainage in the basins of the Eyre and Cust Rivers, known as the Oxford to the sea scheme, has been deferred, the recent succession of dry years making it less attractive to the farmers than when investigations were

begun.

Six tree-planting and one gully control subsidy scheme have been completed during the year.

The Board has now set up a committee to investigate conditions in the Harper-Avoca catchments with a view to reducing run-off and shingle movement.

As a result of the successful experiment with contour furrows and broad-base terraces at Waipara, two neighbouring farmers are doing similar work on their farms.

South Canterbury Catchment Board

This Board, having completed major willow-clearing operations in some of its larger rivers, has proceeded to deal with others and also with several of its smaller streams. At the same time the work previously done has been followed up with maintenance spraying to check second growth.

The clearing of willows in the Ashburton River has achieved a considerable improvement in the channel and has reversed the aggrading tendency of the river. So that this shingle can continue to move down on its course to the sea, a 550 ft. fairway has been cleared through the willows of the lower 7 miles where because the river was entrenched and did not flood, clearing was previously omitted. Willow-clearing is also in hand in Pig Hunting, Esk Valley, Totara Valley, and Three-mile Bush Creeks.