

protection-works a slight scour has taken place here and there, but these weak places have been protected. Although there have been several small floods there has not been a large one during the year, but judging from the action of the river on the groins there is every hope that they will answer the purpose for which they were constructed.

Vote 81, Item 81.—*River Protective Works (Wanganui River, South Westland).*—Cost for year, £154 11s. 3d.—These works were rendered necessary to protect the Main South Road and to prevent the Wanganui River encroaching on the lands in the vicinity. Substantial groins of wire, crate, and stone have been erected, and so far the works have stood well.

Vote 81, Item 83.—*Roads in Runanga Township.*—Cost, £2,636 15s.—The construction of roads, tracks, &c., has proceeded steadily through the year under the able supervision of the overseer in charge, Mr. R. Rothwell. We have endeavoured as far as possible to meet the needs of the miners and others holding sections in the township, and have constructed the streets where the most building was being carried on. The overseer has had several shafts sunk, and fortunately discovered gravel on the hill in the village extension. We are now using this metal for our roads, and it is much less costly than buying metal from the Railway Department, who have now taken charge of the line. As building operations progress it will be necessary to give further street access. The actual work done during the year is as follows: Dray-roads formed 16 ft. wide, 1 mile 11½ chains; dray-roads metalled 12 ft. wide, 22 chains; dray-roads metalled 6 ft. wide, 52 chains; bridle roads formed 7 ft. wide, 1 mile 1 chain; bridle roads metalled 4 ft. wide, 76½ chains; street cleared 66 ft. wide, 5 chains; tramways on narrow metal for access, 2 miles; creeks cleaned out for drainage purposes, 45 chains; ditching 3 ft. by 2 ft. for drainage purposes, 25 chains; culverts 24 ft. wide (46 ft. total), No. 12; shafts sunk averaging 10 ft., No. 4; engineering surveys, roads pegged and graded, 1 mile 40 chains.

Stockman's Hut, Long Beach, £12 0s. 6d.—This is the balance of a vote operated on last year for erection of stockmen's hut, and represents fencing and clearing the enclosure.

W. WILSON,
District Surveyor.

CANTERBURY.

The operations during the year have, as of late years, been restricted almost exclusively to settlement surveys, triangulation and standard surveys having been for a time discontinued.

District Surveyors Messrs. Brodrick and McClure, who were last year temporarily transferred to Marlborough and Westland respectively to undertake urgent work in those districts, returned here after it was decided to acquire the Kinloch and Morice Estates, to make the subdivision survey of the same, in conjunction with Mr. Webb, engaged temporarily to assist. Owing to the urgency of the foregoing surveys, Mr. District Surveyor Wilmot, from Otago, was engaged in this district for about two months, subdividing the lands acquired for the Mills Settlement, in South Canterbury. The field-work completed in this district amounted to 17,413 acres, divided into 105 sections, at an average cost of 2½d. per acre. Of this, 16,001 acres was in the Kinloch, Morice, and Mills Settlements, and the balance, 1,412 acres, included a portion of the Hanmer Plains Reserve and a part of the abutting St. Helens Run, proposed plantation reserves. The settlement surveys have this year proved rather more expensive than usual, principally owing to the extremely wet and boisterous weather experienced by the surveyors while engaged upon the peninsula settlement surveys, combined with the grading and traversing of tortuous roads over hilly and steep spurs, and determining abutting intricate boundaries.

The town section survey consisted of the reproduction, at the request of the Public Works Department, of a block of land acquired by the Crown for a State coal-depot.

Other work is chargeable with £242 16s. 6d., and includes the cost of 2 miles 5 chains of standard traverse survey made during 1900, but which, owing to pressure of other work, has only recently been mapped; rough survey, valuation, and report for Land Purchase Department on a property at the Hook, in South Canterbury; reporting on and redetermining the position of the marked stones on the Mueller Glacier and the terminal faces of the Mueller and Tasman Glaciers during February last, to determine their movements during the past five years. A number of small miscellaneous surveys and a large amount of office-work absorbs the balance of the cost.

Six inspections of Land Transfer surveys were made, and with a few slight exceptions they were found to be very creditably executed, and up to the usual standard of surveys made by the licensed surveyors of this district, who hold a good reputation.

The proposed operations for the coming year consist of the extension of the standard traverse survey within the Borough of Timaru, specially authorised, and the subdivision into 5 small grazing-runs of two runs comprising 12,500 acres in the Hororata District, the leases of which expire on the 28th February next. Surveys are also required of 3 rural sections and 31 reserves, containing 1,712 acres, mostly situated in isolated positions, and as there is no special urgency in these cases, it will be advisable to allow them to remain in abeyance until a surveyor is in the locality.

I would again strongly recommend that in the event of no estates being acquired for settlement in this district during the year, the surveyors should be employed in extending the standard traverse surveys through the suburbs surrounding Christchurch and Timaru, as reference marks along the principal roads are very much required in connection with Land Transfer surveys, and are becoming a necessity owing to the majority of the trig. stations in these localities being quite useless as starting and check points, on account of the increase of buildings and plantations.

Office-work.—The acquisition by the Crown of 15,981 acres 1 rood 17 perches, comprised in the Morice, Kinloch, and Mills Settlements, gave considerable work in preparing the working and other tracings and searching in the Transfer Office to determine the areas and boundaries of the lands acquired, besides which, in order to facilitate the surveyors' work in the field, the plans of the Morice and