

TARAWERA RIVER.

The results of the works in this river are now becoming apparent, the lowering of the waters being, if anything, slightly better than our anticipations. The head of the works is now a mile and a quarter up the river, and the surface of the water has dropped 2 ft. 6 in. This rate of drop will not be maintained throughout the next mile, but will be picked up again, and probably increased in the following one, making our original estimate a conservative one.

Throughout this year a total of 70,860 cubic yards has been excavated by the Hammond pony bucket dredge, and at a cost of 3'1d. per yard, which is very satisfactory. On the Upper Tarawera nothing further has been done. The river is still lowering its bed and completing its channel, and altogether the works have been most successful. The former water-logged country through which the river flowed, and even the old bed itself, is now high and dry.

RANGITAIKI RIVER DIVERSION.

As mentioned before, this work is now almost an accomplished fact, and the diversion will be opened in May. During the year Priestman dredge No. 4 engaged on this work excavated 82,850 cubic yards of spoil, principally sand and alluvial silt, at a cost of 3'9d. per yard. In the sandhills 35,650 cubic yards of sand have been moved by wheeled scoop teams at a cost of approximately 6d. per yard.

As mentioned in my last report, we took these works over from the contractors on the 11th March of last year, and, realizing the economic importance of the undertaking, pushed the work on with all expedition, and, despite the many difficulties that had to be overcome, will succeed in completing the works up to the estimated time.

TE RAHU-MANGAROA OUTFALL.

This work, started at the beginning of the year, is now well forward. Priestman dredge No. 3 engaged upon it has excavated a distance of 2 miles 59 chains, comprising 118,660 cubic yards, at a cost of 2'4d. per yard. This price leaves little to be desired, and reflects great credit on the dredge-masters in charge of the plant. The final benefits from this important portion of the scheme are already becoming apparent, and many hundreds of acres already affected by it are now being laid down in grasses and turned to good account. I am hoping to have this work out of hand by the end of September next, when the plant will be transferred to the next important work in the vicinity—the Kopeopeo outfall.

KOPEOPEO OUTFALL.

Anticipating the completion of the Te Rahu-Mangaroa outfall, and the starting of dredging operations on this work, I am carrying out the necessary preliminary works of clearing and scooping. The location of the outfall for the first half-mile follows an old creek-bed which is completely overgrown and choked with willows. These have now all been "blown" out, and the scooping of the high and dry portions is now well in hand.

AWAITI BEND DIVERSION.

This work has been completed, and is now carrying practically all the river-water. The cut has been scoured well, and the bend is fast silting up. This cut alone has to a very great extent minimized the flood overflow in the Rangitaiki River above, and settlers felt the benefit immediately it was opened.

DRAINS IN OPERATION.

Up to date we have 54 miles 72 chains of drains in operation. This total includes outlet drains only, and is quite independent of drains constructed by us solely for road purposes, and by settlers for subdivisional draining. Approximately four-fifths of our proposed outlet drains are now in operation, so that from now onwards the yearly total of new drains constructed will gradually diminish. The greater portion of the remaining work will be deepening, which is being undertaken as the main dredged outlets are being completed.

During this year 5 miles 63 chains of new drains have been constructed, and 21 miles 64 chains have been cleaned and deepened.

ROAD-FORMATION.

The total length of formed roads constructed to date is 22 miles 77 chains, and of this total 16 miles 47 chains was formed during this year. These roads are being formed from Government grants and accrued "thirds" only, and are not a charge against the drainage-works loan.

The road question is fast becoming a serious matter in this area, and at the present time our drainage operations are considerably in advance of the roading. Settlers in various portions of the district, I regret to say, are experiencing great difficulty and hardship in getting in their building and fencing materials, and also in shifting their stock.

BRIDGES.

Two three-span bridges, one across the Orini Stream and the other across the Te Rahu-Mangaroa outfall, have been erected during the year, and fresh piles have been driven under the Otarakuti Stream bridge, on the main Rotorua Road. This latter work was rendered necessary owing to our diversion of the Upper Tarawera River into the stream, and the consequent enlarging of the bed.

FLOATING PLANT.

This consists of two Priestman dredgers, one Hammond pony bucket dredge, one suction dredge (incomplete), two oil-launches, three pontoons, one ferry punt, and sundry small punts and boats, all in good repair and in constant use.