

AWAITI CANAL.

Only three months' work has been carried out on this canal, as No. 2 dredger was required urgently to deepen the Puhanga Canal.

During the period 23,540 cubic yards of spoil were dredged, and deposited on the southern side so as to form a combined bank and road.

The total distance dredged is now 125 chains, which leaves a gap of 60 chains to the Awaitei Creek.

During the latter part of 1916-17 it will be possible to continue this work.

PUHANGA CANAL.

This canal, which cuts off the Kerepeehi Bend in the Piako River, was completed in 1912, but only as a spillway. As stated in the report of that year, it was possible that it would have to be deepened. During the floods of July and August of 1915, of which more is written in another paragraph, it was seen that this deepening was urgently required. Therefore, in July, No. 2 dredger was towed down from the Awaitei Canal to undertake this work.

Since then the work has been progressing slowly, as during part of the time this dredger was being overhauled, as well as assisting in the dismantling and re-erection of No. 1 dredger.

The country traversed is very treacherous, and slips have occurred, and are to be expected practically at any time.

The amount of spoil excavated was 49,635 cubic yards.

The maintenance of this canal in good order will be one of some difficulty, as the raupo is sure to grow rapidly in it, and also, as stated above, slips are liable to occur at any time.

STOP-BANKS.

The total length of stop-banks on the plains is the same as last year—28 miles 70 chains.

The bank along the Waitakaruru Stream, as mentioned in my last report, was weak, and has been strengthened. With the improvements, however, that have been schemed in this locality this bank will in most places work in very well—in fact, it was laid out with this object in view.

The Piako River banks were subjected to a severe test in the winter: especially was this so round Kerepeehi bend. In this locality the banks, having cracked badly during the summer, did not take up again, and with several feet of water against the bank numerous leaks were found. The remedy for this seepage will be very expensive, but will not be attempted until the effect of deepening the Puhanga Canal has been noticed.

In several places along the coast the banks have been strengthened, and are now fairly satisfactory.

FORMED ROADS.

The total length of formed cart-roads, in nearly every instance with a drain on each side, is 66 miles 38 chains, the distance of new formation for the year being 8 miles 24 chains, portion of this being due to the conversion of road-banks.

The longest distance of new roadwork was on the Netherton Block, which was thrown open during March, 1915.

On the Waitoa Block repairs were effected to the roads as found necessary, but no extensive works were carried out.

At Waikaka, portion of the Patetonga Road North was fascined and blinded with spoil, as it was found that the road-formation had sunk considerable. This work is now in progress, but will be finished in April, 1916.

The formation of the Waikaka Tramway Road has been raised in places, so as to endeavour to secure a solid formation for the tramway. Owing to the necessity for economy on the works this policy was decided on, instead of widening for vehicular traffic, and where possible the line will be ballasted with gravel from the Waikaka Creek.

A start has been made with the ballasting of the Mangawhero Road, so as to complete the access to the sections selected last year.

Most of the clay roads on the plains were either disked or graded during the spring, so as to improve the surface after the winter traffic.

ROAD-BANKS.

At the end of last year the total length of road-banks, spoil only removed about 4 ft. from edge of drains and spread, and also peat roads unsuitable for traffic, was 14 miles 50 chains. Since then 3 miles 5 chains have been converted into roads suitable for all traffic.

The main work included in this total was the reconstruction of the Orchard East Road from the wharf. This bank was graded over, and at the same time a water-table was excavated on the opposite side from the drain.

The balance of the work was situated at Waikaka, where work is still going on.

The Horahia Road is now being converted, and will figure in next year's totals.

DRAINS IN OPERATION.

The total length of drains now in operation is 334½ miles, which total includes all classes of drains constructed by the Department.

Some of these drains, however, have been practically discarded: especially is this so in the deep peat country, where the peat has subsided and the drains are for all purposes non-existent.

The total length of new drains completed during the year was 14½ miles.