

No. 9 Priestman dredge : Early in the year this plant completed work as far as it was economically possible for it to operate in the Awakaponga drain, and then worked back to the Tarawera River, cleaning up, leaving the remainder of the cut to be excavated by the Bay City dipper dredge. The machine was then put on erecting a stop-bank and improving the lower reaches of the Awaite Stream. This work was completed late in the period, and plant was then moved to commence on the Tarawera River stop-banks, from the Railway Bridge northwards. During the period this plant completed a total distance of 455½ chains of dredging, and lifted 123,968 yards of spoil.

No. 17 Monighan dredge commenced work in the Waioho Stream and deviations at the beginning of the period, and has done splendid work in this area. Late in the period the machine had reached the head of the work in this stream, having erected a substantial stop-bank to prevent flooding on the western bank, and made a splendid 40 ft. cut throughout. The plant will commence cleaning up on the way back early in the coming period. A total distance of 188 chains was covered during the period, and 119,363 yards of spoil were lifted.

No. 18 Monighan dredge : This plant completed work in the Kopeopeo Canal during the year, having linked up with the work done by Priestman No. 3 the previous year. The machine was then shifted across to the eastern drain to take up the fall through a deep sand-ridge where great difficulty was previously experienced in keeping an open channel. Splendid work was done, and as a result the low country above the sand-ridge has its freeboard increased by another 4 ft. This work was completed at the end of the period. After a few days overhaul this plant will be available for transfer. A total distance of 245½ chains was dredged during the period, and 91,910 yards of spoil lifted.

No. 21 Bay City dipper : This plant has been working throughout the period under great difficulties, and in exceptionally treacherous country. The transfer to the Awakaponga drain and re-erection was delayed considerably owing to the flood conditions prevailing at the time. Commencing work in June at the railway, the machine linked up with the work done by Priestman No. 9, and worked south again across the railway to the head of the Awakaponga drain. This work was completed late in the period, and plant is being transferred to maintenance work east of the Tarawera River. During the year a total distance of 242 chains was covered and 55,592 yards of spoil lifted.

FLOODS.

Severe floods were experienced in this district during May last, when two heavy rainstorms occurred with a two-weeks interval. The rainfall was exceptionally heavy in the Tarawera watershed, and that river broke its banks in the vicinity of the cross-road and overflowed the low-lying country generally along the Tarawera western drain and in Sections 108 and 110. Considerable damage to drains and small sill bridges resulted. The flooding was also severe in the White-pine Bush area, and water overflowed westwards from this locality into the Kopeopeo Canal via the eastern drain. The works in this locality are now much further advanced, and a similar visitation would not have such far-reaching effects.

ROADWORK.

No new road-formation has been carried out during the year. Roads to the length of 150 chains were graded preparatory to handing over to the local body, and 120 chains of formation from spoil removed by dredges was carried forward on the Kopeopeo Canal. The spoil removed by Monighan No. 17 on the White-pine Bush Road was levelled and surfaced for a distance of 80 chains to form a combined road and stop-bank.

BRIDGES.

One bridge gang has been employed continuously throughout the period erecting permanent pile and sill bridges, laying temporary structures for the passage of walking dredges across drains and canals, and dismantling and re-erecting bridges to allow for passage of floating dredges. Nine new pile bridges were erected during the period, three were dismantled and re-erected, and fourteen temporary structures were laid for walking plants. In addition to this, ten sill bridges of varying widths were placed.

STOP-BANKS.

Maintenance and protective work has been carried out where necessary throughout the completed lengths of the Tarawera stop-bank, and these banks are in good order as far north as the railway-bridge. Protective work was also carried out on the Rangitaiki River banks where erosion was taking place. The Te Rahu bank was also repaired, and raised where excessive subsidence had taken place. A length of 80 chains of new bank, from spoil deposited by dredge, on the White-pine Bush Road, was formed and surfaced to form a combined road and stop-bank.

DRAINS IN OPERATION.

The total length of drains in operation is as follows : Dredge cuts, 64 miles 42 chains ; main outlet drains, 103 miles 26 chains ; road-drains, 29 miles 20 chains.

ROADS OPENED.

The total length of roads opened is still 113½ miles, of which 85 miles have been constructed by the Department.