

The last two years have seen a period of low rainfall, and the total fall for this year was 41·43 in. Except last year, when the fall totalled 39·27 in., this is the lowest recorded for eleven years. Rain fell on 154 days, the wettest month being July, with a fall of 5·88 in., and the driest, November, with a fall of 1·32 in.

The rainfall was well distributed throughout the year, so there was no overtaking of channels, and the highest level recorded on the river at Kaitaia was 7 ft. below flood-levels recorded frequently in the past. This shows the efficiency of flood-control works recently constructed, but the result must in part be attributed to the long period of low rainfall, the state of the water-shed, and consequent low percentage of run-off from the rainfall recorded.

Whangatane Spillway.—Eight swing gates were erected across this channel to connect section boundaries and road-crossings. 1 mile 15 chains of stop-bank and fillings were raised to correct subsidence, and fascines placed on 70 chains of bank at the toe where erosion was occurring or likely to occur; 80 chains of channel was cleared by cutting raupo and other growth. This channel has carried a fair volume of water on several occasions, but has not yet had occasion to operate at full capacity.

School Cut.—Work carried out in connection with this cut consisted of preparing and sowing in grass 4 acres for a school playground, fencing same, and laying a concrete cricket-pitch. Four pumping plants previously operated from the portion of the river now diverted were rearranged and pipe-lines laid to enable water to be pumped from the new channel. 10 chains of fencing was erected to complete fencing of the area taken for the cut.

Drains.—46 miles 42 chains of drain was cleared of growth, siltage, slips, &c., and contracts let in March for clearing 52 miles of drain of which 3 miles had been completed by the end of the period. 25 chains of drain was enlarged and deepened to standard size.

Stop-banks.—Thirteen miles of stop-bank was kept in repair and 53 flood-gate outlets through the banks were frequently inspected and kept in repair to ensure efficient operation. 3 miles of bank was planted in Kikuyu grass, which is proving valuable as a binding, particularly where the banks are composed of sandy or other light soil.

Surveys.—The only surveys carried out in connection with drainage works were the running of levels to establish contour lines on a number of properties adjacent to the Whangatane spillway.

Proposals for Ensuing Year.—Maintenance of existing drains, &c., is the only work in hand for the ensuing year.

Works Expenditure.—The total expenditure for the year was £6,899 9s. 6d., day-labour accounting for £2,310 12s. 1d.

Rating.—Some 597 rate notices were issued for a total rate struck of £4,160 14s. 11d., and £1,965 19s. 10d. was collected.

HIKURANGI DRAINAGE AREA (50,000 ACRES), WHANGAREI COUNTY.

Rainfall.—The rainfall through the year, though at times very heavy, has not at any time caused serious flooding of the main swamp-area. The yearly total recorded at the Apotu gauge was 54 in., for a total number of 155 days with rain, compared with 41·12 in. for the previous year.

Floods.—The maximum stage recorded at Jordan Bridge was 29·3 ft., in May. The same elevation was again reached in March, but the high stage did not remain very long on either occasion.

Data.—Data has been collected of precipitation at various stations, gauging of run-off, water-stages, &c.

The stage recorders previously at the Rapids, Lewis, and Jordan, will shortly be placed at Purua, Lewis, and the Whakapara-Waiotu junction. Purua Bridge will then become the main gauging-station.

Construction Work.—Construction work with excavators and hand-dug drains, where desirable, was carried on as expeditiously as general working-conditions allowed.

Excavator Work, Wairua River.

Main Diversions.—The only work carried out has been in lowering the grade of the ford-crossing at the mouth of G-H diversion.

Main Diversion Spillways.—No work has been carried out on same.

River-improvement.—No. 14 Bucyrus and No. 3 Priestman have carried out improvements to the river by removing rock and timber bars, easing bends, and widening narrow portions from 4 m. 30 ch. to 2 m. 54 ch., and from 2 m. 28 ch. to 1 m. 50 ch.

No. 13 Bucyrus has improved the river from 9 m. 10 ch. to 9 m. 20 ch.

A contractor has almost completed removal of timber from Jordan Bridge to the inlet of No. 11 diversion.

Up-river Diversions.—No. 1: This has been regraded and widened to give the capacity of the largest section of the river proper.

No. 1B: Work here has been on the same scale as for No. 1.

No. 2: Further work on widening has been done by the Priestman at high-river stages.