

The Whangatane spillway has not so far been opened, as it was considered inadvisable to do so until the channel constructed by the Bay City dredge was enlarged. A Marion caterpillar drag-line has now been purchased for this purpose, and by June this machine should be in operation. When opened this channel will relieve a large portion of the area from flooding, and every effort will be made during next summer to work a double shift on this machine so as to hasten the date of opening.

The following schedule shows details of rainfall for the past eight years:—

Year.	Rainfall for Year.	Wettest Month, and Rainfall.		Driest Month, and Rainfall.	
	Inches.		Inches.		Inches.
1918-19	47.30	Oct., 1918..	9.06	Aug., 1918	1.39
1919-20	31.71	July, 1919..	7.37	Dec., 1919	0.62
1920-21	53.11	May and Aug., 1920 (each)	8.02	Mar., 1921	1.13
1921-22	49.42	Mar., 1922	5.84	Jan., 1922	2.24
1922-23	44.81	Oct., 1922..	7.46	Jan., 1923	2.02
1923-24	49.23	Oct., 1923..	7.92	Dec., 1923	1.38
1924-25	48.89	May, 1924..	10.34	Mar., 1925	0.51
1925-26	57.90	May, 1925..	10.43	Feb., 1926	0.88
1926-27	64.91	Oct., 1926	9.62	Dec., 1926	1.51

The principal works carried out during the year have been the completion of dredging in the Awanui River and Whangatane spillway as far as possible with the floating plant in use; maintenance and improvement of existing drains; and extension and improvement of stop-bank and flood-gate system in the tidal area.

Awanui River.—Excavation of cut No. 1 below Awanui was completed early in the year. Bullock teams had been employed for the scooping of top soil, which was practically completed by the end of last period. Priestman dredgers Nos. 7 and 10 were used to carry the excavation to 6 ft. below low-water mark. A distance of $14\frac{1}{2}$ chains was dredged, comprising the cut and approaches thereto, and approximately 8,900 cubic yards of spoil removed. One dredge has also been intermittently employed in removing sand and silt which is continually being deposited in the navigable portion of the river. Approximately 22,400 cubic yards, deposited since the channel was first dredged, have been removed in the past ten months. Some 70 chains of this river in the vicinity of Kaitaia has been cleared of "snags" which had lodged in the bed of the stream or been exposed by the scouring of the channel. Overhanging trees were removed from the banks where, owing to erosion, there was the danger of same falling inwards.

Whangatane Spillway.—13 chains of this cut was excavated by dredger No. 22, Bay City plant, and approximately 3,000 cubic yards of spoil removed. The cut was carried into a tidal creek for some chains, but could not be taken as far as required owing to the hard sandstone bottom not allowing sufficient depth at low tide to float the pontoon on which machine is carried. The dredge was therefore laid up for some time, and has lately been dismantled. A regulating-weir, constructed of timber with stone filling on sides and bottom, was placed in position at the intake to the Awanui River to restrict the flow of flood-waters when channel is opened.

Dredges.—The three dredges, Nos. 7, 10, and 22, employed on above works have removed a total of 34,358 cubic yards at an average cost of 22.06d. per yard. Two of the dredges were laid up for ten months of the year, and one was employed intermittently during this period, so that costs have been increased by interest, depreciation, and caretaking charges while machines were idle. In addition, a large amount of spoil had to be handled twice to avoid blocking the old channel for navigation while the diversion below Awanui was being excavated.

Drains.—55 chains of new drain was constructed to give better outlet for Pukepoto drains emptying into the Tangonge basin, and 30 chains constructed at Awanui to facilitate stop-banking for prevention of overflow during floods. 10 miles 5 chains of drain was cleaned and deepened, and 20 miles 6 chains cleared of weeds, slips, &c.; 100 chains of the Tarawhakaroa Stream was snagged, and all willows and other timber removed from the channel.

Stop-banks.—1 mile 75 chains of new bank and drain was constructed, including the filling of some deep inlets previously open to tidal water; two iron flood-gates were placed in position as outlets with concrete foundation and wing walls; sixteen flood-gates were inspected and kept in repair, most of the concrete doors being replaced with iron flaps; 8 miles of stop-bank and drain was cleaned and repaired as required; and 40 chains of bank on the Pairatahi Stream was raised 2 ft. and enlarged to withstand increased pressure due to opening of lower end of Whangatane spillway and consequent congestion of flood-waters at the point where dredging was discontinued.

Bridges.—Seven sill bridges were erected over outlet drains to give access to properties severed. One sill bridge at road-crossing over the Kareponia Creek was taken up and replaced with a pile bridge with larger span, and an extra span was built on to the Waikuruki Bridge over the Awanui River at Kaitaia. This work was done in consideration of the fact that the existing structures had become inadequate, partly because of the drainage work carried out in the channels concerned.

Summary of the year's operations is as under: Channels dredged, $27\frac{1}{2}$ chains; spoil excavated by dredges, 34,358 cubic yards; spoil excavated by scoops, 500 cubic yards; new drains constructed, 1 mile 5 chains; drains deepened and improved, 10 miles 5 chains; drains cleaned, 20 miles 6 chains; stop-banks kept in repair, 8 miles; stop-banks constructed, 1 mile 75 chains; flood-gates erected, 2; road-bridges improved, 2; sill bridges erected, 7; regulating-weir erected, 1; channels snagged, 2 miles 10 chains.