

RECORDS OF DAILY PRECIPITATION, KEREPEEHI, HAURAKI PLAINS.

Year.	Number of Days, with given Daily Precipitation in Inches.												Total Days.	Total Fall.	Wettest Month, and Rainfall.	Driest Month, and Rainfall.
	0.00 to 0.40.	0.50 to 0.74.	0.75 to 0.99.	1.00 to 1.24.	1.25 to 1.49.	1.50 to 1.74.	1.75 to 1.99.	2.00 to 2.49.	2.50 to 2.99.	3.00 to 3.99.	4.00 to 4.99.	5.00 to 5.99.	6.00 to 7.00.			
1916 ..	109	12	9	7	2	3	..	1	..	..	1	..	144	52.19	Nov. 6.65	Feb. 1.05
1917 ..	131	11	4	4	3	..	1	1	1	..	..	..	156	45.61	Feb. 6.26	Jan. 0.65
1918 ..	145	14	6	4	..	1	..	..	1	..	..	..	171	44.06	Oct. 7.47	May 2.24
1919 ..	122	9	1	3	2	..	..	..	..	..	..	..	137	27.36	July 4.52	Dec. 0.89
1920 ..	85	7	10	3	1	1	3	2	..	..	..	..	112	43.16	Feb. 6.10	July 1.73
1921 ..	93	12	5	3	2	..	..	1	..	..	..	..	116	34.41	Oct. 5.89	Feb. 0.72
1922 ..	101	17	9	3	..	1	1	..	1	..	..	..	133	42.81	Feb. 6.62	April 1.73
1923 ..	151	6	5	4	..	1	1	..	..	..	..	1	169	47.04	April 9.76	Mar. 1.72
1924 ..	132	8	10	5	2	5	1	1	..	2	..	..	166	60.37	April 8.55	July 1.87
1925 ..	142	15	4	2	..	..	..	1	..	..	..	..	164	37.64	June 6.67	April 0.84
1926 ..	149	15	6	4	5	2	2	..	..	..	..	..	183	55.53	May 8.86	Feb. 1.79
1927 ..	159	10	6	5	..	4	..	..	..	..	..	..	184	45.33	July 6.29	April 2.01
1928 ..	125	7	9	2	3	2	2	1	..	..	..	..	151	47.30	May 7.52	Jan. 0.01
1929* ..	21	2	2	..	1	..	..	..	..	..	..	..	26	5.98	Mar. 3.83	Feb. 0.74

* First three months of year only.

The following is a general summary of the work carried out by the Department during the year :—

DREDGES.

Included among the major works are the dredging of drainage canals, river-channel enlargement, and stop-bank construction. Eight dredges have been engaged on these works during the year, and the total quantity excavated was 619,911 cubic yards, at an average unit cost of 6.54d. per cubic yard.

The following table gives the total quantity excavated by the dredges during the past nine years :—

Year.	Cubic Yards.	Cost per Cubic Yard.
1920-21	 158,865	7.42d.
1921-22	 246,022	7.29d.
1922-23	 440,092	8.20d.
1923-24	 508,654	7.27d.
1924-25	 822,286	5.86d.
1925-26	 856,653	6.32d.
1926-27	 647,182	7.42d.
1927-28	 652,413	7.32d.
1928-29	 619,911	6.54d.

The channel-improvement works on the Piako River have reached a stage when a long-reach machine operating from river-bank can be used with economy, and No. 19 dredge is being altered for this purpose. River-channel enlargement is now completed between Ngatea and Kerepehi, and a considerable amount of work has been done on a 2-mile reach below Ngatea, and on the reach, $3\frac{1}{2}$ miles in length, between Kerepehi and Kaihere. The effect of the channel-enlargement is seen in the improved tidal range in the river and the more rapid discharge of flood-water.

Stop-banks have now been raised to final level on both banks of the Puhanga spillway, and on the left bank of the Piako River from the mouth to 8 m. 8 ch., and from 8 m. 60 ch. to 14 m 45 ch. On the right bank of the Piako River the stop-banks have been completed from the mouth to 4 m. 15 ch., and from 8 m. 5 ch. to 11 m. 10 ch.

No. 1 Priestman dredge was engaged on Piako River channel enlargement during April, September, and October, and on the Awaitei and Elstow Canals during June, July, and August, but has been laid up since the 27th November. During the time the plant was working it excavated 24,022 cubic yards, at unit cost of 9.31d. per cubic yard.

No. 2 Priestman dredge made good progress in the Maukoro Canal. The canal-head was advanced 65 chains during the year, and is now 6 miles 65 chains from the main-road bridge at Waitakaruru. A section of the canal commenced last year was also deepened. The highest point on the canal route has now been passed, and four dams have been required to raise the water-level in the canal 30 ft. above mean sea-level. Fuel for the dredge is now delivered by the Torehape Road tramway to a point about 25 chains ahead of the dredge. The year's output was 72,881 cubic yards, and the unit cost 5.53d.

No. 6 Priestman dredge was engaged on Piako River channel enlargement below Ngatea, and also removing willows. Owing to the restricted space at Ngatea Township it was not possible to dispose of all the spoil excavated by the usual method of bank delivery, and barges had to be used to dispose of some of the excavated material. Excessive bank-caving prevented the excavation of the channel to the required section in this locality, and work will be resumed after allowing time to regain stability. This dredge was also engaged excavating trenches in the bed of the Piako and Waihou Rivers to receive electric cables. The quantity of material excavated during the year was 26,502 cubic yards. The unit cost was 12.2d. per cubic yard, which is satisfactory considering the nature of the work on which the plant was engaged.