REPORT OF CHIEF DRAINAGE ENGINEER.

Sir,-

I have the honour, in accordance with the provisions of the Rangitaiki Land Drainage

Act, 1910, to report on the various services performed during the financial year ending the 31st March, 1916. Despite the world war and its attendant call on men and money these works have been

actively carried on during the year, though not to the same extent as would have been the case under normal conditions. The dearth of suitable labour has been very severely felt in this part of the district throughout the year, and at the time of writing the greatest difficulty is being experienced in even manning the various maintenance-works which are essentially needed before winter sets in. The call for volunteers for the Expeditionary Forces has taken the greater number of young and able-bodied men out of the district, and as the whole of the Whakatane County is particularly prosperous—farmers energetically developing their to a large extent unbroken holdings—the demand for the remaining available labour is keen and difficult to obtain at old rates. Every effort is, however, being made to push on with the works, and thus bring the whole area into such a state that it can add its increased quota of beef, mutton, butter, and cheese,

which are in such demand at the present time, to the products of the Dominion.

As in the past, cattle-fattening continues to be the principal industry, and an ever-increasing amount of beef is being turned off the area for the Auckland markets. The country requires a good deal of "crushing" before it is suitable for the laying-down of permanent pasture. This is most economically carried out with heavy stock, and this, together with the fact that the country is proving excellent turnip land, tends to popularize fattening of stock. The settlers have to be congratulated on their energy and foresight in the progress already made towards the erection of freezing-works. Experts were appointed to inspect the whole of this coast and select the most suitable site for the crection of freezing-works, and after carefully going into the question—fortunately for the local district—selected a site on a corner of the Rangitaiki Plains adjacent to the Whakatane Harbour and Township. I understand that everything is now in train for the erection of the works. A co-operative company has been formed, the necessary capital subscribed, and in all probability the works will be opened for the receiving of stock some time during the coming summer.

The production of butter-fat is also on the increase, and since last report another cheesefactory—the Rangitaiki Dairy Company 2—has been erected and put into operation at Mangaroa. However, milking is not being resorted to to the extent one would expect, but I am sure that this must eventually become dairy country. With the country as prosperous as it is now and labour unprocurable there is little inclination to milk, but the time must come when settlers

will subdivide their present large holdings and make milking the principal industry.

With the increasing farm and dairy produce exported, and the large quantities of farm implements and material generally imported, it is only natural that efforts are being made to improve the shipping facilities. The Whakatane Harbour Board is alive to the needs of the district, and has recently raised a loan of £35,000 for the improvement of that harbour, which apparently will become the main harbour for the district. Considerable shipping also enters the Rangitaiki "outlet," and auxiliary boats up to 120 tons capacity are continually in and out of the port with fencing-material and general non-perishable goods. At Matata the shipping is also considerable, though not perhaps to the same extent.

The construction of the East Coast Railway, the necessity of same being felt more and more every day, is now close at hand. The headworks are now located in Matata Township, and no construction difficulties will be experienced in carrying it across the plains. Hence the isolation

is fast disappearing against which this district has had to fight for so long.

It is pleasing to note the great benefits that have resulted from the Rangitaiki River diversion. Two severe floods were experienced during June and July last, the second coming down before the first had subsided. The Rangitaiki and Whakatane Rivers were particularly high. The former overflowed its banks in places between Reid's and Kokohinau, and let a good deal of water into the basin of the swamp. In two or three cases where settlers had burnt and sown grass-seed in advance of our works a small amount was partially ruined, otherwise neither the settlers nor the works suffered in any way. The Whakatane River was particularly high on the Kopeopeo Bend, and backed up for a short time over a small area adjacent to the Kopeopeo outfall, but no damage resulted. Till this flood the Rangitaiki River diversion had not in any way been severely tested, and had had no opportunity of scouring itself to its necessary dimensions. Nevertheless it carried these flood-waters so successfully that no overflow occurred in the five-mile stretch from Reid's to the coast, where formerly the banks were practically awash throughout the winter months and overflowing after each small freshet. The cut has now opened out considerably and its carrying-capacity increased accordingly, so that with the Awaiti Bend cut similarly opened up and the river cleared—as it is now—to a large extent of willow congestion, I am of the opinion that if the same flood occurred again the overflow would be almost entirely cut out. Nevertheless it is advisable, as it is intended, to do a certain amount of stopbanking on the low-lying banks between Reid's and Kokohinau.

Generally the settlers are well up on to our works with their subdivisional draining and breaking in, and improvements are apparent throughout the area. Though in a few cases settlers are getting ahead of our works, there are other instances where more could be done than is being done. Altogether the plains are thriving, settlers are busy and prosperous, and the whole outlook

augurs well for the future.

With labour-conditions as they are at present it is fortunate for us that the smaller hand works are so well advanced. There is not a great deal of actual new work to be undertaken, and for the future all available labour can be put on to maintenance and deepening works. will be the first consideration, and must be carried out in order to hold and, where possible, improve the present conditions.

DREDGES.

The three dredges have been busily engaged throughout the year in the excavation of the major outfall drains, and during almost all the summer months the two Priestman dredgers