

should be made to the Whakatane River on the line marked red on plan, and flood-gates of ample width erected where this new drain will enter into the Whakatane River. The present outlet of this drain into the Whakatane River is so far from the sea that in flood-time, so we are informed, the water is sometimes for a considerable period 3 ft. to 3 ft. 6 in. higher at the present outlet than it would be at the proposed new outlet, which would always be at sea-level. (See Exhibit M.) The result is that when the Whakatane River is high for some days, as it sometimes is, it prevents the water in the drain from getting away, and much land is therefore flooded for periods long enough to do very considerable damage to the grass. The proposed new outlet, being always at sea-level, would be little affected by flooding. At the time the present outlet was put where it is it was part of the plan to straighten the Whakatane River with a new channel that would cut off the horse-shoe bend at present seen on the plan. This proposal was subsequently abandoned, on account, we understand, of a disagreement with the Whakatane Borough Council. Quite apart from the improved getaway for the water which would be obtainable from the proposed new outlet, the flood-gates of the present outlet are altogether insufficiently wide to enable the water in the drain to get away properly during ebb tide. We feel confident that if the new outlet which we have proposed for the Kopeopeo outfall drain in the Whakatane River is made, and the drain is then closed at each end by flood-gates of ample width, the average water-level in this drain will be considerably lowered, with a consequent lowering of the waters in all the subsidiary drains leading into it; and that an improvement generally of the drainage of a large area of land will result. In connection with these flood-gates, which have been built of concrete, we think that equally effective and very much cheaper flood-gates could be constructed of timber.

Awaiti Drain.—The drainage map shows that this drain has to cope with the water coming in from all the drains between the Rangitaiki and Tarawera Rivers. For a distance of about four miles from its outlet the fall in this drain is very small indeed, and as a consequence the water travelling down it has very little velocity. In order to deal effectively with the large volume of water this drain has to carry it is, in our opinion, necessary to largely increase its width from its outlet to, approximately, Walker's drain—a distance of, say, four miles and a half. In addition to this, we are of the opinion that the advisability of constructing flood-gates at the outlet of this drain to the Tarawera River should be carefully considered.

FINANCE.

Statements of accounts showing the position and various details of expenditure up to the 31st March, 1925, are attached herewith. A perusal of these will show that at that date the net capital liability involved in these drainage operations was £481,202; this is apart from the sum of £58,633 for rates that have been remitted, and which the State has paid to the Rangitaiki Land Drainage Account out of the consolidated revenue. This is a subsidy which the State has granted to the venture, and is, as far as we can see, the only subsidy that it has given. In addition to this capital sum of £481,202 there is a further capital expenditure that we have indicated as being, in our opinion, necessary to render the present drainage system more effective. We have not attempted to make any detailed estimate of the cost of these additional works, but we are of opinion that the work ought to be done for a sum not exceeding £40,000. As a set-off against this present net liability the State owns plant and machinery the residual value of which is now, say, £27,000. We are of the opinion, seeing that these drainage-works have been the means of effecting a great saving in the cost of railway-construction over a length of at least ten miles, that a substantial charge should be made against the Public Works Department on that account. It is difficult to assess the value of the saving so made, but, taking into consideration the fact that the Public Works Department would either have had to take the line round the foothills, thereby increasing the present length of the railway by some six miles, or else would have had to undertake a partial drainage system of the swamp to permit of the line following its present route, we have come to the conclusion, and recommend, that the sum of £35,000 is not an excessive charge to make on this account.