

siderably blocked the flow of water, owing to their materially reducing the sectional area of the river, have been removed for the distance above mentioned. Also several projections, or weedy muddy points have been removed by the dredges.

The consequence of the above-named operations has been extraordinary and satisfactory, as can be well understood, as so far this season the flood-water has practically been confined to the channel from Waikaka Landing to the Hauraki Gulf. The effect is most noticeable at Kerepehi and its vicinity. Proof of this is that the late rains which rose the Waihou River to such an extent as to submerge a great part of Paeroa caused no appreciable difference at Kerepehi. I am credibly informed that near the junction of the Waihou and Ohinemuri Rivers the flood rose within 1 ft. 9 in. of the level of the big flood of two years ago. At Kerepehi on the same date the flood did not rise within 5 ft. or 6 ft. of the level of the flood referred to. At Waikaka the level was at least 3 ft. lower than at the former period referred to. This result has been obtained by the removal of the obstructions in the Piako River, immediate vent having been afforded the flood-waters.

The Awaiti Creek has been further widened and deepened by the dredges for a considerable distance; consequently a large area of land which under previous circumstances would have been submerged by 2 ft. or 3 ft. of water is now unaffected by any rains we have had this season.

In my last annual report I asked your attention to the overflow of the Waihou River, and informed you that unless something was immediately undertaken to confine the said river to its natural channel a large area of the Hauraki Plains would be subject to occasional flooding from the Waihou River. I informed you then that I considered that the Piako River, if cleared from obstructions, could supply outlet for its natural tributaries, and also afford all that was necessary for local drainage. On this question I am now satisfied; but its sectional area is not sufficient to provide for overflow from the Waihou River.

I inspected the Waihou River, and reported thereon to you, and the information I gave would, I think, satisfy you as to the present condition of the river, and as to a feasible method of dealing with the question, which is of considerable magnitude and importance to all lands abutting or contiguous to the course of the river.

I enclose herewith two plans, one of which indicates the drains already constructed. The drains are principally shallow or surface drains, but are made of sufficient size to allow them to be deepened as may be necessary without increasing the present top width, the necessity being to relieve as immediately as possible the lands of stagnant water, and thus enable said lands to be utilised and brought to profit at the earliest possible date. The matter of these lands and the drains thereon will be referred to later.

On the site of the canal shown on plan has been opened up (for its entire length) one of these surface drains, which is by measurement on an average 9 ft. wide at the surface, 3 ft. deep, and 6 ft. wide at its sole or bottom. This drain, though so small, has been of considerable benefit to the property, and has strengthened my idea as to the necessity for and the location of the proposed canal. The canal, when completed, will convey and give a quick discharge of the flood-waters of the Piako and Waitoa Rivers into the Hauraki Gulf; also, will prevent flooding of the plains from the waters and creeks from the watershed of the ranges on the western side of the property.

It is beyond all doubt that the canal, when finished, will materially benefit not only the Government lands, but also all the low-lying land abutting the Waitoa and Piako Rivers and their tributaries.

Dredges.

One of the dredges is now working straightening the channel of the Waitakaruru River. This is necessary to enable the dredge to be taken to the mouth proper of the canal, also to create an immediate discharge of waters from the Waitakaruru River and from the canal which will intersect all creeks lately discharging into the swamp. The other dredge is now engaged removing banks, bars, and weedy points in the Piako River. It will shortly be removed to the top end of the canal near the Maukoro Block. The commencing of this latter work is now practicable owing to the present supply of flood-water in the river. It was not economically practicable to work here when the river was anything like its summer level. Next summer this question will not cause any difficulty, as we shall have plenty of water from the swamp at our disposal.

Work performed.

Last year I returned a total of 29½ miles of drains as having been constructed. I have now to report that a total of 127 miles, which, with the exception of 7½ miles performed by day-labour, were performed by contract or piecework, have been constructed, including, of course, the opening-up of original water-courses or creeks, which were completely blocked, and in most cases not traceable for miles. Generally the course of the creeks was followed when economically practicable. Besides these drains, about 250 chains of drains have been made, and the excavated material therefrom formed into roads or bridle-tracks; 181 chains of drains have been deepened, and the total excavations therefrom formed into roads or bridle-tracks. Not included in above, the material from 1,208 chains of drains has been spread into bridle-tracks; 325 chains of drains have been widened and deepened; 102 chains of drains have been made, and the excavated material has been utilised in forming a stop-bank to prevent the overflow of the tide or flood.

Flood-gates.

Eight double-door flood-gates have been erected with satisfactory results, and at least twenty more will be constructed as early as practicable.

Wharves.

Two wharves for landings have been erected, and two more are under construction.