

REFERENCE CLAUSE 1.

Sludge-channel Proclamation, 1895.

1. The first reference made to us is to ascertain whether any and what lands are injuriously affected by the operation of the Proclamation of the 28th March, 1895, declaring the Ohinemuri and Waihou Rivers to be watercourses into which tailings, waste water, and mining *débris* might be discharged.

We are satisfied that material damage has been done to lands in the Township of Paeroa, and to farming lands, and to lands capable of being used for farming purposes, adjacent to the banks of the Ohinemuri and Lower Waihou Rivers and the Komata Creek, and adjacent to portions of the banks of the Upper Waihou, and that this damage is directly due to the deposit in the Ohinemuri River of mining silts and slimes under the sanction of the Proclamation.

Damage by tailings.—Recent floods detrimental.

It is admitted that mining *débris* and sand tailings had been deposited in the rivers prior to the date of the Proclamation, but it does not appear that the amount so deposited had been sufficient to materially affect the flow of the streams. Your Commissioners are satisfied that since the Proclamation the large quantities of tailings turned into the streams, especially into the Ohinemuri, have so reduced the available section of the watercourses that the rivers are, and have been for some time past, incapable of carrying off flood-waters to the extent that the rivers were capable of providing for before that date; also that, whereas prior to 1895 the River Ohinemuri was to all intents and purposes a clean stream, only carrying down in times of flood alluvial material that when spread on flooded lands would not be of a harmful, and might be of a beneficial, character, the floods of recent years, owing to the choking of the flow of the river by mining deposits, are of greater frequency and magnitude, and being heavily charged with mining tailings and slimes, are very detrimental to the flooded lands and to the stock pasturing thereon.

Upper Waihou floods.

With the exception of the deposit of mining sands on the river-banks where low-lying on the western side of the Waihou, and where the mining sands have been carried up creeks and drains from the river when in flood and deposited on the adjacent lands, we find that the damage by floods, when existing on the lands on the western bank of the Waihou, from the section known as Ngararahi (about two miles above the Junction) as far down the river as Turua, about six miles from the northern boundary of the Ohinemuri County, only results indirectly, and to a small extent, from the raising of the river-bed by silt. The floods are caused by the waters of the Upper Waihou, which at times of freshes have overflowed its western bank at points some seven miles above the Junction into the low-lying swamp lands that are supposed to be drained by the Awaiti Creek to the Piako, and at the same or other times by overflows at points to the south of Ngararahi. These flood-waters flow out of the river into the low-lying swampy bush land, run at slow speed parallel to, and over the lands at the back of, the river-bank, and then flood settled lands from Netherton to Turua when returning to the Lower Waihou.

Watershed, Waihou and Piako Rivers.

It is clear that the absence of a defined watershed for a portion of the distance between the Waihou and Piako Rivers is a very serious matter, and one that must, in the interests of settlers in both districts, be attended to. An exceptional flood might materially alter the face of the country by making a permanent channel, turning part of the Waihou waters into the tributaries of the Piako River.

Volume of tailings.—Fine grinding to slimes.

Since 1895 large and increasing volumes of sand, tailings, and slimes have been discharged into the upper reaches of the Ohinemuri, amounting at the present time to about 550,000 tons annually. At first the sands discharged were comparatively coarse, but with the gradual adoption of tube mills during the