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# KUMARA SLUDGE-CHANNEL AND WATER-RACE

(REPORT ON, BY MR. H. A. GORDON, INSPECTING ENGINEER).

*Presented to both Houses of the General Assembly by Command of His Excellency.*

REPORT by INSPECTING ENGINEER on Resolution of Gold Fields Committee on Petition of Miners using the Government Sludge-channel and Water-race at Kumara.—6th October, 1884.

MEMORANDUM *re* KUMARA WATER-RACE and SLUDGE-CHANNEL for the UNDER-SECRETARY,  
MINES DEPARTMENT, Wellington.

Mines Department, Wellington, 10th October, 1884.

IN accordance with the instruction of the Hon. the Minister of Mines I have the honour to report on the Kumara Water-race and Sludge-channel, as follows:—With reference to the recommendations of the Gold Fields Committee to hand over the Kumara Water-race and Sludge-channel to the Westland County Council and the Kumara Borough Council, it will be necessary to give you a *résumé* of the history of the whole subject, in order that you may clearly understand it in all its bearings.

The Kumara Water-race and Sludge-channel are only a small portion of the water-races belonging to the Government in this locality, and they are all so connected together that it is impossible to separate the one from the other. Therefore, if the recommendations of the Gold Fields Committee are given effect to, it means handing over the whole of the Waimea-Kumara Water-race and Sludge-channel—works that have cost in construction £173,143 11s. 8d.

These works were first commenced in June, 1873, and in July, 1876, the portion known as the Waimea Water-race was completed at a cost of £118,575 15s. 2d. In 1876 the Kumara Gold Field broke out, and pressure was brought to bear on the Government to bring in a water-supply for this new field. A private company, known as Learmont and Company, commenced to construct a water-race from Kapitea Creek; but the miners considered it totally inadequate to the requirements, and, in April, 1877, the Government purchased this company's water-rights and water-race, as far as it was constructed, for £8,000. After purchasing these rights the Government enlarged and extended the water-race, and constructed a reservoir in Kapitea Creek; but the water-supply in this creek was found to be totally insufficient, except in wet weather, to meet the demand. They then brought a branch of the Waimea Water-race into the watershed of the Kapitea Valley, and constructed another large reservoir. The whole of the works connected with the Kumara water-supply have cost, in addition to the original purchase, £29,367 4s.

Shortly after the water was brought on to the Kumara Gold Field, the miners urged that it was impossible to work the ground unless a large sludge-channel or tail-race was constructed from the fall into the Teremakau River to a large flat known as Dunedin Flat, and Larrikins, and that this was a work beyond their means; but, in the event of the Government constructing it, they would be willing to pay a rent for using the same to get their tailings away. This rent was fixed before commencing to construct the channel, the miners agreeing to pay 10s. per man per week for the use of the channel four hours per day. The Government constructed this channel, which was first estimated to cost only £4,000 (*vide* manager's annual report of the 8th July, 1879, H.-11, page 30), but which has now cost £17,200 12s. 6d., making the total cost of the whole work connected with the water supply to be £173,143 11s. 8d.; but, although this is the original cost, it is only reasonable to add interest on the capital year after year since the works commenced.

The following table will show the total expenditure every year, and interest calculated at 4 per cent., the shillings and pence being deducted from the expenditure to facilitate calculation. (Taken from Tables 7 and 12, in the Public Works Statements):—