

Enclosure 3 in Appendix E.

WESTLAND DISTRICT.—ANNUAL REPORT ON WATER-RACES.

SIR,—

Public Works Office, Greymouth, 31st March, 1881.

I have the honor to report as follows upon the water-races in the Westland District for the financial year 1880–81. The water-races in question are—

Nelson South-West Gold Fields—

Four-Mile Water-race, Charleston District.

Nelson Creek Water-race, Grey Valley District.

Westland Gold Fields—

New River Water-race, Marsden District.

Hibernian Water-race, Marsden District.

Hohonu Water-race, Greenstone District.

Waimea Water-race, Waimea District.

Waimea Extension to Kumara, Kumara District.

Kaniéri Lake Water-race, Hokitika District.

Mikonui Water-race, Totara District.

Four-Mile Water-race.—No works have been done on this race during the year, excepting the ordinary maintenance of the Argyle Race. The maintenance cost £461. Portions of the race are, however, now very dilapidated, and are badly in need of renewal. Plans were prepared, and tenders called for a deviation near the head of the Argyle Race, which would have the effect of avoiding a very insecure portion of it, besides reducing the length of the race very materially. The lowest tender received amounted to £2,206 6s., but was not accepted. In my last annual report, I explained the various works proposed in connection with this race, and, as the conditions of the case have not altered since (or any new proposals been made so far as I am aware), it will not be necessary for me to further report upon this matter at present, except to say that it will probably be necessary to execute very extensive repairs on the Argyle Race during next year in order to keep it open.

Nelson Creek Water-race.—Length, 16 miles 24 chains; capacity, 60 statute-heads. No construction-works have been done on this race during the year. The maintenance is entirely under the control of the Gold Fields Department. Its maintenance during last year cost £1,467.

New River, Hibernian, and Hohonu Water-races.—These water-races were subsidized by the Government many years ago, but the works have now been abandoned by the promoters, and there appears to be no present probability of their resuming occupation of them.

Waimea Water-race.—Length of main race, 16 miles 4 chains; capacity, 40 statute-heads. Length of branch race near Goldsborough, 59 chains; capacity, 30 statute-heads. No construction-works have been done on this race during the year, but the maintenance of the race has been carried out. It has cost £758, which is defrayed by the Gold Fields Department.

A survey for a drainage tunnel from Kelly's Terrace, near Stafford Town, has been made during the year. Its purpose is to drain ground said to be auriferous, and which is commanded by the Waimea Race. The length of the proposed drainage tunnel would be about 103 chains, and its probable cost about £5,000. By the route set out a clear outfall on to the sea-beach would be obtained, and the fall in this direction is ample to drain the desired area. Other and shorter lines have been proposed, which would be also less costly; but they possess the disadvantage of not admitting of ample fall being given, and of the outfalls being into a creek the bed of which is continually filling up with tailings, which would very probably choke any outfall there. One other and principal reason for the selection of the line I recommend is, that it will, in the opinion of the miners conversant with the place, follow approximately the run of the gold; and it will follow from this that the lengths of the branch tunnels required to drain the claims will be reduced nearly to a minimum.

Waimea Water-race (continued): Extension to Kumara.—Length of main distribution race, 3 miles 1 chain; capacity, 20 statute-heads. Total length of branch distribution races, 4 miles 4 chains; capacities varying from 5 to 50 statute-heads. Supply race from Kawhaka Creek: length, 4 miles 60 chains; capacity, 30 statute-heads. The above races have now been opened for over three years. Their maintenance during last year cost £2,451, which is defrayed by the Gold Fields Department. The first section, 46 chains in length, of the sludge-channel at Kumara is now practically complete. It has been satisfactorily executed throughout. A most deplorable accident on the 5th July last, by which three men lost their lives in consequence of a fall of earth, is the only circumstance of consequence to mention in connection with it. The second section of the sludge-channel is 39 chains in length, and was let on the 15th November last to Mr. E. J. T. Price for £5,590. The tunnel along this portion of the channel is smaller than in the first section, owing to the traffic on the tramway being anticipated to be less. The work done up to end of year has been principally of a preparatory nature, consisting of sinking shafts and erecting winding machinery; only a short length of the tunnel itself having been driven. Matters are in train, however, for a rapid rate of progress from this forward. The total cost of the sludge-channel up to its completion will probably be about £16,000.

The dam in Kapitea Valley alluded to in last year's report has not yet been proceeded with.

Kaniéri Lake Water-race.—This water-race, like the New River and other races before mentioned, was subsidized by the Government many years ago, and it has similarly been abandoned by its promoters with no present prospect of their resuming its use.

Mikonui Water-race.—Length of main race, 14 miles 40 chains; capacity, 40 statute-heads. Branch race and supply pipe to Ross: length, 60 chains; capacity, 20 statute-heads. The two contracts in operation at end of last year have since been completed, and a further batch of eleven sections were advertised for tender early in year; of which, tenders for nine sections were accepted. Of these nine sections, six have since been completed, and three are still in progress. These sections have consisted altogether of tunnelling; no other class of work having yet been put in hand. Some of the tunnels have been through hard rock, which has rendered their progress very tardy. The total length of tunnelling completed and under contract on this race is 1 mile 38 chains; the whole of which is situated between the lower end of the long tunnel and the termination of the main race. It will probably be