

Charleston; (2) the improvement and enlargement of said reservoir and works; and (3) the construction of a further supply race from the Four-Mile River to the said reservoir, with headworks at Four-Mile River.

Of this project the first item has already been carried out, and surveys and working plans and specifications for the carrying out of the other two items are just now completed.

In the carrying out of the first item—namely, the purchase from the Argyle Company of their property above mentioned—the following have come into the possession of the Government: The main reservoir, commonly known as Haines's Dam, supply races to same to extent of 2 miles 63 chains, and three small reservoirs, and some small dams in creeks in connection therewith; a main-service race, having a length of 3 miles 61 chains, and branch-service races to extent of 1 mile 43 chains, together with seven small service dams belonging thereto. The amount paid for all these was £3,000, and a deed of transfer was duly executed accordingly on the 23rd April last, but as the purchase-money was not paid till the 17th May the Company were allowed to resume possession, and collect and retain the revenues up to the latter date.

With regard to the second item, then—namely, the improvement and enlargement of the reservoirs, and works so purchased—the detail surveys and estimates now to hand show probable cost of this work to be £3,500; and, with regard to the third item—namely the construction of a further supply-race from the Four-Mile River to reservoir known as "Haines's Dam"—the length of this race as now surveyed would be 7 miles 30 chains, and its cost about £7,500.

The total cost of completing the project, therefore, over and above the amount spent upon it to date, would be about £11,000; and, should the work be undertaken accordingly, everything is now in readiness to enable it to be carried out, as, in addition to the plans and specifications which have been prepared for contract, a good pack track has been made from a point on the main road near Four-Mile River Crossing, up said river, for a distance of 4 miles 30 chains, by which access can readily be got to all parts of the race line.

As already stated before, however, on several occasions, I think it is very doubtful if the expenditure referred to would prove remunerative, and I should recommend that if the Government were inclined to go to any further expenditure upon this project at all it should be confined to the expenditure required for improvement and enlargement of the existing reservoir and water-races—namely, £3,500.

Should this recommendation be adopted, the track above referred to would not, of course, be fulfilling the primary object for which it is constructed; but it will nevertheless be fully worth the money that it has cost in opening up to prospecting a large area of ground hitherto practically inaccessible, and also in opening up a considerable area of good agricultural land existing along the Four-Mile River Valley, while at the same time it will always be ready and available for the purpose for which it was primarily intended in the event of the supply-race above referred to being at any time hereafter constructed.

*Nelson Creek Water-race.*—Length, 16 miles 24 chains; capacity, 60 statute-heads, with headworks at Lake Hochstetter, branch races, waste-water channels, and foot tracks, &c. This work is all fully completed as stated in report for last year, and it was handed over to the Gold Fields Department in April, 1878. For the year just ended the value of water sold has been £1,850, while the working expenses have been £1,500.

*New River Water-race.*—Capacity, 16 statute heads; length contemplated, 8 miles 70 chains; length completed, 6 miles 53 chains. This work was undertaken in 1872 under a Government subsidy of £5,000, of which only £3,500 has been paid to date; but the work has been practically abandoned by the projectors, so that it is not probable that any further advances will be asked for from the Government, and neither is it probable that any further interest on the amount already advanced will be paid by the Company.

*Hibernian Water-race.*—Capacity, 10 statute-heads; length, 5 miles 51 chains; undertaken in 1872 under a Government subsidy of £2,000. This work was completed several years ago, but it is now abandoned, so that no further payment of interest on the Government advance can with any reasonable probability be anticipated.

*Hohonu Water-race.*—Capacity, 50 statute heads; length, 5 miles 41 chains of main race, with reservoir and branch races, &c., as detailed in last year's report; cost, £12,500, of which £2,500 was obtained from the Government. This work was completed several years ago, but it is now entirely abandoned.

*Waimea Water-race.*—Kawhaka Creek to Ballarat Hill, with branch race near Goldsborough and headworks at Kawhaka Creek. Length of main race, 15 miles 75 chains; capacity, 40 statute-heads; and length of branch race, 59 chains; capacity, 30 statute-heads. Of this work the whole of the main race and 47 chains of the branch race were completed at date of last annual report, and the remainder of the branch race, together with the headworks at Kawhaka Creek, have been completed during the year just ended.

*Waimea Water-race (continued): Extension to Kumara.*—This work, including the supply race from Kawhaka Creek, consists of 7 miles 60 chains of main race and 3 miles 76 chains of distribution races, varying in capacity from 5 statute-heads to 50 statute-heads, as detailed in report for last year, together with a reservoir in Kapitea Valley and headworks at Kawhaka Creek. All these works were completed before date of last annual report, and they have been in full operation since then.

In addition to these works it has been advocated by the miners in the district that a further reservoir should be constructed in the Kapitea Valley, for the reason that the supply of water during dry weather is at present sometimes inadequate to the demand, and that the demand will go on increasing in proportion as the present system of paddocking gives way to ground-slueing. Should this representation be concurred in, the site in question will be found to be a good one, and a very large storage reservoir could be constructed there for £8,000.

The necessity for a main sludge channel at Kumara has also been strongly advocated by the miners there, and a section and report upon it have already been got out. The cost of its construction would be about £4,000.