1898. NEW ZEALAND.

${f WATER-CONSERVATION}$

(REPORTS ON) FOR MINING, IRRIGATION, DOMESTIC, FIRE EXTINCTION, AND OTHER PURPOSES.

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

No. 1.

The COUNTY CHAIRMAN, Thames, to the Hon. the Minister of Mines, Wellington.

Thames, 12th October, 1897. I have the honour to address you on the subject of my telegram of the 8th instant—viz., the construction of a water-race to carry ninety or a hundred sluice-heads of water, and I need not assert it would be a work of paramount advantage to this goldfield, and this fact is accentuated by

the inadequacy of the present race to meet our requirements.

Orders are already given for the construction of three large batteries with all the modern appliances for gold-extraction—the Moanataiari Gold-mining Company, sixty stamps; the Thames-Hauraki Goldfields (Limited), sixty stamps; the Fame and Fortune, forty stamps. For the first two we have received applications for motive-power, and, if they are to pay, driving by water-power will be the greatest factor to insure success. These applications will be the heralds of many others,

be the greatest factor to insure success. These applications will be the heraids of many others, and are exclusive of any power which may be required for pumping the deep levels.

The scheme for which the Council applies for assistance is quite practicable, and the services of a consulting engineer are sought by advertisement to consider two plans for securing and delivering the supply. One is by an open race with a reservoir at its terminus, the other by a direct delivery through a main to the distributing-point in Grahamstown. The Council will necessarily be guided by the advice of its consulting engineer, and the result will be immediately communicated

The Council is fully aware of the grave responsibility involved in the construction of this new race, but the future of the field is a consideration which fully justifies the Council in recommending it and the Government in adopting it. Trusting this proposal will secure your approval and its

recommendation to your colleagues,

I have, &c., T. A. Dunlop,

The Hon. Minister of Mines, Wellington.

County Chairman.

No. 2.

Mr. George Wilson, Inspecting Engineer, to the Under-Secretary, Mines Department, Wellington.

Mines Department, Wellington, 31st January, 1898. Sir,-Re low-level water-race from Kauaeranga Creek, for the construction of which the Thames

County Council have made application to Government for the expenditure of £57,777:

As arranged with you, I met Messrs. Dunlop and Hollis, the Chairman and Clerk to the Thames County Council, and conferred about the low-level-water-race scheme. The plans were

Thames County Council, and conferred about the low-level-water-race scheme. The plans were examined, Mr. E. F. Adams, the engineer, being present to point out various matters in connection with them. The plans have been carefully prepared, and the race is estimated to be capable of supplying eighty sluice-heads of water with a fall of 75 ft. The cost has been estimated on a sound basis, and, in my opinion, the work could be completed for the money.

The attached paper furnished by the Council shows that the present race supplies twenty-six sluice-heads of water, the gross revenue from which for the past ten years was £22,428 18s. 7d., or £2,242 per annum, being about £85 per sluice-head per annum. In making the estimate of revenue Mr. Hollis shows the yearly value of eighty heads from the new race to be equal to that of forty heads from the old race at £3 per week per head, which would amount to £156 per head per annum. This appears to be excessive, as for ten years past water from the present race has only yielded a gross revenue of £85 per head. The motive-power applied for amounts to thirty-eight heads, and is all for battery purposes; of these batteries, two, the Moanataiari and the Fame and Fortune, are almost completed, and the Thames-Hauraki Company have not as yet opened up the quartz reefs, nor is the erection of the battery commenced. nor is the erection of the battery commenced.