

There are, of course, in addition to the direct profit shown above, indirect benefits conferred on the district by having this source of power available, which have so increased the demand for power-supply that the plant has been run overloaded continuously throughout the year, and numbers of prospective consumers have had to be refused connections until extra plant can be installed. During the year the load on the plant reached 7,412 kilowatts, although the normal full-load rating of the machines is only 6,000 kilowatts. The fifth unit (4,000 horse-power) has been installed during the year, and the pipe-line to supply this was expected to be completed by October of this year. It is hoped that if this machine gives satisfactory trial runs it will be able to take up a share of the load before the end of the year. A further unit of the same size has also been ordered, and should be completed and in service during 1922. The level of the lake had been falling gradually as the load has exceeded 6,000 kilowatts, that has always been considered the limit of power available from the Lake-stream itself, without the addition of water from the Harper, Acheron, or Wilberforce Rivers. During the year a channel was excavated from the Harper River bed into the lake, and a temporary diversion of the river made into this channel. This has proved very successful, and the lake-level has risen consistently ever since. It is proposed during the coming summer to complete a permanent diversion of the river into this channel, which will enable the Coleridge station to be duplicated and brought up to a capacity of at least 36,000 horse-power. It is anticipated that this will meet the demands of both North and South Canterbury for some years. A start has been made with the erection of a transmission-line to give supply to South Canterbury, and it is anticipated that a limited amount of power can be supplied over this by the end of 1922, and a complete supply when the duplication of power-house, for which plans are now being prepared, is completed.

#### HORAHORA POWER-STATION.

This power-station, which was taken over from the Waihi Company and operated on behalf of the Department for the concluding five months of the preceding year, has been operated by the Department for the past year.

As in early years of the Coleridge undertaking, the first year of operation of this plant does not show a profit after allowing for all charges. It is satisfactory, however, that the whole of the operating-expenses have been paid, together with a substantial sum towards interest and depreciation even at this early stage of operation.

The revenue for the year ending 31st March, 1921, was £14,805, and the expenses were as follows :—

						£
Operation	..	..	..	..	..	6,452
Interest	..	..	..	..	..	10,675
Depreciation	..	..	..	..	..	3,960
						£21,087

leaving a deficit of £6,282 on the year's operation. Next year's revenue should show a very substantial increase, as it was only towards the end of the financial year just closed that any consumers other than the Waihi Gold-mining Company were connected up. Since the close of the financial year supply has been given to the Hamilton Borough Council, and to the Thames Valley, Te Awamutu, Central, and Cambridge Power Boards, which will very considerably increase next year's revenue. A contract has been made with the Grand Junction Company to take a supply of power from our system so long as we have it to spare, and when our supply becomes limited, or in the event of a failure of supply, we can utilize the company's steam plant up to a capacity of 2,000 kilowatts to supply power back into our system. Similar contracts on a smaller scale have been made, and others are being negotiated, with some of the dairy companies in the district which already have efficient steam plants.

The maximum load on the station during the year was 3,600 kilowatts, but it is anticipated that by the end of the present year the load will have reached very nearly the limit of the present plant, 6,000 kilowatts. Tenders have been invited for two additional units of 2,000 kilowatts, which it is proposed to add to the present station, and preparations will be made for installing this plant as soon as it can be delivered.

The work of erecting the transmission-lines necessary to give supply to the different Power Boards has been pushed on vigorously during the year, and all the Boards are now in a position to take power at one or more points.