1901. $N \to W$ ZEALAND.

${ m MMISSION}.$

REPORTS OF COMMISSION TO INQUIRE CERTAIN MATTERS RELATING TO WATER-

(In continuation of H.-21 of 1900.)

Presented to both Houses of the General Assembly by Command.

To His Excellency the Right Honourable Uchter John Mark, Earl of Ranfurly the Governor of New Zealand.

MAY IT PLEASE YOUR EXCELLENCY,-

In compliance with your Excellency's Commission of the 9th day of April, 1900, to inquire into matters in connection with the proclamation of certain rivers in Otago and Southland as channels into which tailings, *débris*, and waste water from mining claims be discharged, your Commissioners, having already submitted to your Excellency two interim reports, have now the honour to forward to your Excellency their final report, together with evidence taken, as

FRUIDBURN.—(FIRST SCHEDULE.)

The Fruidburn takes its rise in the Lammerlaw Range, and to its confluence with the Clutha River passes through Crown lands, with the exception of one section of freehold land, comprising an area of 640 acres, belonging to Messrs. Rattray and Sons, who are the lessees of Beaumont Station, a pastoral estate of 69,000 acres. The best portion of the freehold section lies in the valley of the Fruidburn, and is cultivated and used for growing winter feed for stock. A large area of the leasehold, being high country, is covered with snow for about four months of the year, and the stock have to be kept on, and provided with food from, the low country during that

Two dams of considerable size have been constructed in the valley of the Fruidburn by a company known as the Island Block Hydraulic Sluicing Company. The water in the upper dam company known as the Island Block Hydraulic Slutcing Company. The water in the upper dam covers a portion of Messrs. Rattray and Sons' freehold, for which the company pay a rental of 10s. per acre per annum. The original cost of these dams, races, and hydraulic plant was about £30,000. The first company went into liquidation, and the property was purchased by the present company about a year ago for £5,250. Since the purchase the present company has expended about £2,000 on the plant and repairs to head-works, and it is now employing eleven men in working the ground. The evidence of the directors of the company shows that the company has a lease of freehold land belonging to the Colonial Bank of Australasia, Melbourne, comprising an area of 2,000 acres, of which 750 acres are auriferous; and that it is intended to work this land with dredges, in addition to a hydraulic elevating plant, and to use part of the water-supply to work an electric plant for generating power for the dredges. The directors of the company assert that if the Fruidburn were declared a sludge-channel their water-rights would be rendered almost valueless, as the tailings and sediment from the muddy water coming from claims higher up the stream would settle in the dams, and thereby greatly interfere with the conservation of water and cause damage to the company's plant.

There are six miners employed on a terrace adjoining the Fruidburn, about a mile and a half higher up the stream than Messrs. Rattray and Sons' freehold, and about two miles and a half above the Island Block Company's upper dam. These miners have amalgamated their interests. The washdrift in the terrace in which this party of miners is carrying on hydraulic-sluicing operations was about 30 ft. in depth at the time your Commissioners visited the ground; but the terrace rises considerably, and the bottom on which the washdrift lies shows indications of dipping, so that, should the workings extend back to the top of the terrace, the depth of the face would be not less than 70 ft. The tailings from the workings have so far been deposited on the flat, and not dis-

charged into the creek, except at one place where the bank broke away.

The Fruidburn has very little fall from the place where the miners are at work to the upper dam of the Island Block Company, and its banks are so low that if tailings were discharged into the stream its bed would soon be filled up for some distance below their mining claim. The water and tailings would spread over a considerable area of the valley, and fresh channels would be liable to be cut every flood.

1—H. 21.

H.—21.

The miners, in their evidence, were not in accord as to the time they have been at work, but all of them were agreed as to the amount of gold they had obtained. Mr. L—— F—— produced a book which showed that the total value of gold, obtained from 14th November, 1899, to 13th November, 1900, was £23 14s. 8d. He also stated that, in addition to this, there might be from the washing-up then taking place about $1\frac{1}{2}$ oz. of gold, which had a value of £3 17s. 6d. per ounce. This would make the total value of gold produced up to 13th December last, £29 10s. 11d.

From consideration of the evidence tendered, and an examination of the ground, your Commissioners are of opinion that in the mining operations so far carried on the ground has has not been of a payable character, and therefore do not recommend that the Fruidburn be at present proclaimed a channel into which tailings, *debris*, and waste water from mining claims may be discharged.

KAKANUI RIVER.—(SECOND SCHEDULE.)

No miners are working at present on the Kakanui River or its tributaries. It appears that some of the landowners prospected the flats alongside the river with a view to dredging, but did not find gold in sufficient quantities to warrant the proposed expenditure. The river has a rock bottom from near its source to the lower end of Balruddery Station—about fourteen miles from its mouth —where the bed widens out in places from 15 to 20 chains, and is covered with gorse and broom. These places could easily be dredged if gold were found in sufficient quantities to pay for working, without injuring any adjacent land. There have been some gold-workings on the ocean beach, at the mouth of the river, as the remains of "paddocking" can be seen, and this ground could also be worked without injury to any adjacent landed properties.

Your Commissioners are of opinion that sufficient prospecting has not been done along the river to prove whether gold in payable quantities exists or not, and therefore do not recommend that in the meantime this river be proclaimed a watercourse into which tailings, debris, and waste

water from mining claims may be discharged.

AWAMOKO STREAM.

The Awamoko Creek takes its rise in the range to the westward of the Livingstone Township, and runs through a mining reserve for a distance of about four miles, and thence through the Tokorahi Estate, the Maruwhenua Estate, a Native reserve, and freehold land to its confluence with the Waitaki River. From the point where the creek leaves the mining reserve it runs for a distance of about three miles through a rocky gorge, from which its course for a distance of about six miles and a half is through a narrow valley, having an average width of about 10 chains; thence through another rocky gorge for a distance of three miles, approximately; thence for a distance of three miles through a valley having an average width of from 15 to 20 chains; thence through another rocky gorge to the Waitaki Valley, which it traverses for a distance of about two miles.

In the early days of the goldfield, tailings and waste water from mining operations were discharged into this creek. At that time the Tokorahi and Maruwhenua Estates were freehold lands, owned by Messrs. Borton and McMasters, who, together with other holders of freehold sections abutting on the creek, took steps to prevent the miners using it as a receptacle of tailings and waste water. The creek has therefore not been so used for the last ten years by the mining com-

munity.

Recently the Government, under "The Land for Settlements Act, 1894," purchased the Tokorahi and Maruwhenua Estates, which form a considerable portion of the land through which the Awamoko Creek flows, and set apart a chain reserve on each side of the creek, which reserve is now held by the different Government leaseholders on a yearly tenancy. Evidence tendered your Commissioners by settlers on the Tokorahi Estate showed that a number of them are partially dependent on the Awamoko Creek for the supply of water for their stock and domestic purposes, and that in the event of the creek being declared a watercourse under the Mining Act, tailings carried down by the stream would raise the bed and in course of time be deposited on the low-lying portions of their holdings.

lying portions of their holdings.

The miners in the vicinity of Livingstone state that there is a large area of auriferous ground that could be worked on the mining reserve through which the creek flows. Owing to the action of the freeholders above referred to, mining of late years has been confined to the ground in the watershed of the Maruwhenua River, which is divided from that of the Awamoko by a narrow ridge. It was asserted in evidence that unless facilities were given to open up this reserve many of the miners on the Livingstone Goldfield would have to leave the district, as the locality at

present being worked remuneratively would shortly be exhausted.

At the present time thirty-four men are employed on hydraulic-sluicing claims on the Living-stone Goldfield. They are supplied with water from four water-races, which have a maximum carrying capacity of twenty sluice-heads, but which, at certain seasons of the year, are reduced to a minimum of about three heads. Three of these water-races could be diverted so as to command the ground of the mining reserve in the watershed of the Awamoko.

A dredge is approaching completion for the purpose of working the ground in the bed of the Awamoko Creek, directly opposite the township of Livingstone, near the lower end of the mining reserve, but very little prospecting has been done to ascertain whether or not the ground contains a

sufficient quantity of gold to pay for working by this method.

Your Commissioners endeavoured to obtain information as to the area and rateable value of land liable to be affected if the Awamoko Creek were declared a watercourse under the provisions of section 108 of "The Mining Act, 1898," but the information supplied was not sufficient for your Commissioners to definitely arrive at the amount of compensation that would be required to be paid. It may be given as an opinion, however, that the maximum amount should not exceed £2,000.

 \mathbf{H} .—21.

Taking all circumstances into consideration, your Commissioners recommend that in the meantime notice be given of intention to proclaim the Awamoko Creek a watercourse into which tailings, debris, and waste water from mining claims may be discharged, but in making this recommendation your Commissioners desire to place on record their opinion that in view of the fact that, owing to insufficiency of water, the goldfields in the watershed of the Awamoko could not support more than a very limited population; the colony would be warranted in paying a small amount only by way of compensation should the proclamation be proceeded with.

TAIERI RIVER.

The Taieri River flows through auriferous country from its source to near the point where it enters the Taieri Plain. The upper portion of the river has been a receptacle for silt from mining operations for the last thirty-eight years. Tailings and silt from the gold-workings at Kyeburn, Naseby, Hamilton's, and other places adjoining the upper reaches of the river have been brought down by the river and its different tributaries and deposited in the Taieri Lake, until the lake is now almost filled up. A certain quantity of silt and fine tailings has also been brought into the river by its tributaries from the gold-workings in the vicinity of Hyde, Hindon, and the Deep Stream. In time of flood the fine silt is carried with the water, and a certain quantity of it is deposited in the bed of the river, where the tide-water of the ocean meets the down-flowing stream.

A large area of the Taieri Plain was subject to being covered with water in heavy floods before there were any gold-workings. In the early days of the settlement a portion of the now cultivated plain was a swamp, and banks have been constructed around properties, not only to protect the land from being flooded, but also to allow it to be drained by the use of pulsion wheels, with wide floats to lift the water over the banks. These wheels are driven by steam-power, and have to be

kept working during ordinary wet weather.

A bank has been constructed on the west side of the Taieri River, by the West Taieri and Henley River Boards, from the mouth of the gorge where the river enters the plain to its confluence with the water from the Waipori and Waihola Lakes, and thence along the Waipori River and Lake to near the Township of Berwick. This bank keeps back the water of the river from the plain, except in very exceptional floods. Its construction, your Commissioners were informed, cost over £30,000, the money for which was borrowed, and rates levied by these River Boards on the land affected by floods to repay capital and interest. The Chairman of these River Boards informed your Commissioners that there is now only one small instalment of the borrowed money to be repaid. They added, however, that the banks have been found to be too low in places, and will require to be raised.

An exceptionally heavy flood took place about the middle of November last, and was one of the highest ever known. The water broke over the bank in places, but did comparatively little damage. On the east side of the Taieri River, where there is no embankment, the flood-water covered on that occasion a considerable area, and has left in places a thin deposit of silt on the land; but even where this deposit has been made it has, speaking generally, not damaged the crops to any material extent. Some of the settlers state that the silt acts as a fertiliser, and though it damages the crops to a certain degree it does the land good. These heavy floods, it may be

mentioned, have hitherto occurred only once in about nine or ten years.

During inspection of the lower reaches of the river your Commissioners did not observe any material damage caused by either silting up or water cutting away the banks. It is well known that the beds of rivers which descend from mountainous country through alluvial plains are raised by silt and débris coming down with the water, and in many instances to such an extent that the water flows in a fen, and in time of flood breaks over the low banks and forms new channels. The Taieri River, being very rapid in its course through the gorge, would naturally bring down a certain quantity of silt and débris from slips from the mountain sides, even if there were no gold-workings, and deposit it in the bed in those reaches where there is very little river-fall. The gold-workings during the past thirty-eight years have contributed to some extent to the quantity of silt in the river-bed, but the land in the plain has not sustained any permanent damage.

Your Commissioners have examined the land in the Taieri Plain affected, or liable to be affected, by floods, and have prepared a schedule showing the area of land held by the different owners and lessees, with the rateable value of same, and are of opinion that a consolidated River Board should be formed by those interested to deal with the question of protection of the land from damage by floods. As there are about 164 settlers, each holding an average area of 116½ acres of land, whose properties are affected by flood-water from the river, it would be desirable to allow such a consolidated River Board, as suggested, to formulate a scheme of protection to cope with the difficulty, for the reason that there would be a greater probability of their agreeing amongst themselves as to what is required to be done than to any scheme submitted

by a Government official.

Taking all the surrounding circumstances into consideration, and having in view the feasibility of a scheme which would conserve both the agricultural and the mining interests, your Commissioners do not recommend that the Taieri River be proclaimed a watercourse into which tailings, débris, and waste water from mining claims may be discharged.

KYEBURN.

A great deal of work has been done in connection with gold-workings in the valley of the Upper Kyeburn, and tailings have been sluiced into this stream for the last thirty-eight years without doing any damage to land along its course. A dredge is now in course of construction to work ground in the valley on what is known as Church Flat, and it is likely that more dredges will be constructed there if the one now nearly completed prove successful.

As there is little likelihood of any claims being made for compensation, your Commissioners recommend that the Kyeburn, from its source to its confluence with the Taieri River, be proclaimed a watercourse into which tailings, débris, and waste water from mining claims may be discharged.

Hogburn.

Mining has been carried on in the Hogburn and its valley for the last thirty-eight years. It is the principal outlet for all the waste water from mining claims in the vicinity of Naseby. hydraulic-elevating plants are being worked in this valley, about two miles below Naseby, and are giving good returns. There is a mining reserve, 10 chains in width, down this valley, from Naseby to the Taieri Lake, which manifestly precludes the possibility of any valid claims for compensation being made in the event of the stream being declared a sludge-channel, and your Commissioners therefore recommend that the Hogburn be proclaimed a watercourse into which tailings, debris, and waste water from mining claims may be discharged.

GIMMERBURN.

The Gimmerburn takes its rise in the Garibaldi Range, and passes through a wide valley for a distance of about seven miles to its confluence with the Wetherburn, which is a tributary of the Taieri River. At the point where it leaves the gorge in the range there is a tailings reserve of 124 acres, which extends below the gorge for a distance of about a mile and a half, and from the lower end of this reserve to the Wetherburn there is a mining reserve of 2 chains wide along the course of the stream. There have been considerable gold-workings on the Garibaldi Range, and there is a large deposit of tailings on the reserve immediately below the mouth of the gorge.

Evidence tendered to your Commissioners showed that the tailings reserve was leased by two settlers, and that a channel, for the purpose of draining the land, was cut in the reserve to the place where the tailings are deposited. The cutting of this channel had the effect of concentrating the water which formerly flowed over the flat, and as a result of such concentration tailings have in time of flood been deposited on lands occupied by other settlers lower down the stream. The evidence also showed that there were four miners working claims on the Garibaldi Range, and that

they could only work for about four months in the year owing to scarcity of water.

It was evident to your Commissioners after inspection that there is a sufficient reserve for the deposit of tailings near the mouth of the gorge, and that any damage done to settlers lower down the stream is due to the action of those who cut the before-mentioned channel in the reserve. this channel were closed up near its head, the tailings and water would go over a considerable area of the tailings reserve, and not in any way interfere with or damage the land of settlers lower down

Under these circumstances your Commissioners do not recommend that the Gimmerburn be proclaimed a watercourse into which tailings, débris, and waste water from mining claims may be

discharged.

Fraser River.

The Fraser River takes its rise in what is termed the Old Man Range, and traverses from its source auriferous country, some portions of which are known to contain gold in sufficient quantities to pay for working. A hydraulic-sluicing plant has recently been constructed for the purpose of working the Fraser basin near the source of the river.

There is no freehold land on the banks of this river until it leaves the mountains and enters the plain at the Earnscleugh Estate, where it passes through a pre-emptive right section recently purchased by the Government. Below this pre-emptive right holding there are two small sections of freehold land, but one of these has lately been sold for dredging, and it is probable the other will

be disposed of for a like purpose.

Seeing that the bed of this river is likely to be worked by dredges, and that little or no compensation will be required to be paid, your Commissioners recommend that the Fraser River be proclaimed a watercourse into which tailings, débris, and waste water from mining claims may be discharged.

TUAPEKA RIVER.

The Tuapeka River may be said to take its rise at Wetherstone and the Blue Spur, where rich deposits of gold have been obtained, and workings are still being carried on by dredging and hydraulic sluicing and elevating plants. Dredging claims have been taken up in the valley of the river. One dredge is at work and another in course of construction on Wetherstone Flat, and other dredges are working on the Tuapeka and Evans's Flat.

The result of the first gold-workings, which were carried on by "paddocking," was that the ground was left in a very rough state, and utterly useless for cultivation, but the reworking of it by dredges has the effect of leaving it in such an improved condition that there is a reasonable

prospect of the dredged land being utilised for settlement purposes.

Seeing that no injury will be done and no compensation required to be paid to any landholder, your Commissioners recommend that the Tuapeka River, with the tributaries, Wetherstone, Gabriel, and Monroe Creeks, be proclaimed watercourses into which tailings, débris, and waste water from mining claims may be discharged.

CARDRONA RIVER.

Active mining operations have been carried on in the valley of the Cardrona and adjoining terraces during the last thirty-eight years. One dredge has been working near the junction of the Branch Creek and the main river for the last twelve months, and at the present time there are five dredges under construction to work the ground in the valley of the Cardrona below the township, which is about eight miles from the source and fifteen miles from the confluence with

the Clutha. Very rich deposits of gold have been obtained in the valley above the township, but below this the lead was lost. The ground below the township is much deeper than that above, and there being too much water to contend with, it could not be worked in the ordinary manner.

Mining will not detrimentally affect any landholder, and no valid claim for compensation can

Your Commissioners recommend that the Cardrona River and its tributaries to their sources be proclaimed watercourses into which tailings, débris, and waste water from mining claims may be discharged.

Pomahaka River.

This river takes its rise in the Old Man Range, and flows through freehold land for a distance of nearly 40 miles to its confluence with the Clutha. Gold-workings have been carried on on the terraces adjacent to the river since the early days of the goldfields, but at the present time very little work is being done. One dredge is at work on the Ardmore Estate on a small tributary about a mile distant from the river, and is said to give payable returns.

There is a large extent of low-lying cultivated land in the valley of the river, which is covered with water in time of flood. Several dredging claims have been taken up in the river-bed, but your Commissioners could obtain no information as to the progression of the several dredging claims.

your Commissioners could obtain no information as to the prospects obtained.

Your Commissioners are of opinion that sufficient prospecting in the river-bed has not been done to warrant a recommendation that the Pomahaka River be proclaimed a watercourse into which tailings, débris, and waste water from mining claims may be discharged.

ARROW RIVER.

A number of mining claims are being worked on the terraces adjacent to, and the tributaries of this river, as well as workings in the bed of the main river. There is no freehold land which can be injuriously affected by such workings, as the river flows principally through a rocky gorge from its source to its confluence with the Kawarau River. Extensive mining operations are likely to be carried on in this locality for a number of years.

Your Commissioners recommend that the Arrow River and its tributaries higher up the stream than the Arrow Township be declared watercourses into which tailings, débris, and waste water

from mining claims may be discharged.

SHOTOVER RIVER.

Rich deposits of auriferous washdrift were obtained in the bed of this river in the early days of the goldfields, and gold-mining is still being carried on in the bed and adjoining terraces. The river flows through a steep, rocky gorge for a distance of fully twenty-five miles to its confluence with the Kawarau River. Wherever the bed-rock was reached gold was found in payable quantities, and there are reaches in the river-bed in which no mining operations have yet been carried on. Dredges have been worked with very successful results in the portion of the river known as the Big Beach, and several dredging claims have recently been taken up in those portions not hitherto worked.

There is no freehold land that will be affected by mining, and no valid claims for compensation can be made. Your Commissioners, therefore, recommend that the Shotover River and its tributaries be declared watercourses into which tailings, débris, and waste water from mining

claims may be discharged.

NEVIS RIVER.

The Nevis River passes through Crown lands from its source to its confluence with the Kawarau River. It has been a receptacle for tailings from mining claims for the last thirty-seven years, and at the present time mining is being carried on in the river-bed and on the adjoining A number of dredging claims have been taken up in this locality. Five dredges are terraces. being worked, and one is under construction.
Your Commissioners recommend that this river, with all its tributaries, be proclaimed water-

courses into which tailings, débris, and waste water from mining claims may be discharged.

Bucklerburn.

The Bucklerburn flows through Crown lands from its source to where it empties into Lake Wakatipu. There is at the present time a hydraulic sluicing and elevating plant for working the ground in the bed of the stream. Rich deposits of gold were obtained in this burn in the early days of the field, and there is a possibility of dredging being yet carried on near the mouth of the stream.

In view of the fact that no compensation would be required to be paid, your Commissioners recommend that the Bucklerburn and tributaries be proclaimed watercourses into which tailings, débris, and waste water from mining claims may be discharged.

DART RIVER.

A number of dredging claims have been taken up in the bed of the Dart River. One dredge is in course of construction, and is expected to be ready for work at an early date. There is ample ground for a large number of dredges, and should the dredge now being built prove a profitable venture, there is every prospect of several others being placed on the river.

There is no likelihood of any damage being done to adjacent land by mining operations, or of

any valid claims for compensation being made.

Your Commissioners recommend that the Dart River be proclaimed a watercourse into which tailings, débris, and waste water from mining claims may be discharged.

REES RIVER.

Several dredging claims have been taken up in the bed of the Rees River, but, so far, no dredges are being constructed and no mining is being carried on in the valley of the main stream, though hydraulic-sluicing and elevating plants are being worked on two tributaries of the river—namely, the Oxburn and Templeburn, formerly known as Precipice Creek and Twelve-mile Creek respectively.

A large quantity of shingle is brought down from the mountains every year by the flood-water of the river, and is rapidly raising the bed. There is a considerable area of low-lying cultivated land in this valley, which, in the natural course of events, will be covered with shingle, even were no mining carried on. Dredging in the bed of the river will not accelerate the destruction of this land.

Though the river-bed has been taken up for dredging, your Commissioners could not obtain any information as to payable prospects, or otherwise having been obtained, and therefore do not deem it expedient that the Rees River be at present proclaimed a watercourse into which tailings, débris, and waste water from mining claims may be discharged.

OTHER RIVERS.

Your Commissioners visited all the goldfields centres, and examined the principal rivers and streams into which waste water from mining claims is discharged—namely, the Clutha, Kawarau, Dunstan, Manuherikia, and Shag Rivers, with their tributaries. On some of these dredging operations are being extensively carried on.

On the Clutha River thirty-two dredges are at work, and sixty-two in course of construction. All the working dredges, with the exception of one near Lowburn, are situated between Cromwell and Beaumont. Twenty-four of these are working between Cromwell and Alexandra, a distance of about twenty-one miles, and fifteen in course of construction are intended to work ground between the two last-mentioned towns.

On the Kawarau River there are eight dredges working, and seventeen in course of construction.

Dredging operations are principally carried on at the present time on the Clutha and Kawarau Rivers; but dredging claims are being taken up on almost every flat and stream known to contain auriferous gravel-drift. Dredging is developing into a very large industry, and will be the means of gold being obtained from the beds of rivers and alluvial flats where there is not sufficient fall to work by hydraulic sluicing. The cost of working the ground by these dredges is about 3d. per cubic yard, or approximately the same as working ground by hydraulic-elevating plants. Comparing these two systems of working, the first cost of a dredge is less than that of a hydraulic-elevating plant of similar capacity, with the necessary dams and water-races, and it is only in certain localities that a sufficient water-supply can be obtained for hydraulic elevating, and even that supply is only sufficient to work one or two claims, whereas the number of dredges is only limited by the extent of ground that will pay for working, provided that enough water is available for washing purposes. In working the alluvial drifts by dredges in the beds of streams there is no likelihood of any damage being done to land held by settlers along the banks, as a dredge merely trenches up the gravel in the bed and deposits it again in nearly the same place.

Taking all the circumstances into consideration, and seeing that some of the principal rivers have been used as main channels to carry off the waste water and silt from gold-workings during the past thirty-nine years, your Commissioners do not at the present time see any necessity to recommend that the Clutha, Kawarau, Dunstan, Manuherikia, and Shag Rivers be proclaimed watercourses into which tailings, débris, and waste water from mining claims may be discharged.

Your Commissioners have, with deep regret, to state that Mr. J. P. Maitland, Commissioner of Crown Lands for Otago, has been unable, owing to serious illness, to act as one of your Commissioners in dealing with the subjects contained in this report, and consequently Mr. Maitland's name is not appended thereto.

All these matters we respectfully submit to your Excellency, and the Commission is returned herewith.

Given under our hands and seals this 21st day of January, 1901.

HENRY A. GORDON, Chairman. JOHN HAYES. FREDK. R. FLATMAN.

To His Excellency the Right Honourable Uchter John Mark, Earl of Ranfurly, Governor of the Colony of New Zealand.

MAY IT PLEASE YOUR EXCELLENCY,-

In accordance with your Excellency's Commission, dated the 7th day of January, 1901, to inquire into the expediency or otherwise of certain watercourses in the Land Districts of Marlborough, Nelson, and Westland being constituted and set apart by proclamation as watercourses into which tailings and waste water produced by or resulting from mining operations may be discharged; and generally to make such inquiries, in the event of proclamations being issued, as will show the resulting benefit to mining and other industries, and the resulting injury to the agricultural or other industries, together with the sums that will probably be required to settle claims for compensation or to take the lands compulsorily, your Commissioners have the honour to forward an interim report as follows:—

MOTUEKA RIVER.

The Motueka River takes its rise in a mountain range which forms the boundary between the Land Districts of Nelson and Marlborough, and after leaving the mountains flows through small alluvial flats for a distance of about fifteen miles to its confluence with the Motupiko River. its junction with the Motupiko River it flows for a distance of about nine miles through a strip of low-lying land, having an average width of about 40 chains to its confluence with the Whangapeka River; thence for a distance of about six miles and a half through a gorge, in which there are occasional small areas of low flats, to its confluence with the Baton River. From the Baton to the point where the river enters the plain near the Whakarewa Orphanage, its course, for a distance of seventeen miles, is through a valley, the low land of which has a width varying from 20 to 100 chains, and is an important fruit-growing locality. The hills on each side of this valley rise abruptly and are only suitable for grazing purposes.

The river after passing the Whakarewa Orphanage traverses a large plain, comprising an area of about 9,000 acres, all occupied in small holdings. The most of this land is highly cultivated, and a considerable portion of it is in hop- and raspberry-gardens and orchards. The river has in the past been continually altering its course and gradually cutting away the banks, until some of the settlers have now very little of the alluvial soil left on the land they originally purchased. It has in places cut through the sections, and in some instances left a portion on each side of the present

channel.

The average fall in the river from the junction of the Rocky River to the ocean, a distance of eight miles, is about 9 ft. per mile, and from Rocky River to the junction of the Baton River, a distance of fourteen miles, it is over 15 ft. per mile, while above the junction of the Baton, the fall is considerably greater, the effect being that gravel and debris from the erosion of the banks in the upper part are carried down and deposited in the lower reaches where the fall is less. This has so raised the bed below the junction of the Rocky River, that in large floods the river overflows its banks and spreads in every direction over the plain where the Townships of Motueka and Riwaka are situated; indeed, there are now so many old channels and by-washes in this plain, that it is impossible to predict what course the river may take in the future.

Some landowners have protected portions of the banks at great expense, by the construction of groins, fascine-embankments, and willow-planting, but in several places, where no such work has been done, the river is rapidly cutting away its banks. At every flood some of the willows are washed out and deposited on the beaches and in the bed of the stream, where they ultimately take root and cause serious obstruction. As the river banks are low, and the ground falls away on both sides, unless some systematic protection-works are carried out, and the willows removed from the bed of the river, it is impossible to estimate the extent of damage to property by this river, whether

a proclamation is issued or not.

Your Commissioners are strongly of opinion that a River Board should be formed for the purpose of carrying out a comprehensive system of protection, with the object of confining

the course of the river and preventing the destruction of adjoining lands.

In regard to the auriferous character of the gravel-drift in the terraces adjacent to the Motueka River, your Commissioners could obtain no evidence to show that they contained gold. The only evidence tendered was to the effect that a number of miners about twenty years ago, were for a short period working on the various beaches of the river above its junction with the Rocky River, and that they could earn from 6s. to 10s. a day. Since then there have been a few miners occasionally at work.

Applications have lately been made for twelve prospecting licenses for dredging purposes in the bed of the river, but so far as your Commissioners could ascertain, no prospecting has as yet

heen done to prove whether or not gold could be found in payable quantities.

A considerable quantity of gold has been obtained from the watersheds of the Tadmor, Baton, and Pearce Rivers, which are tributaries of the Motueka, and evidence was tendered, showing that gold was obtained in the upper portion of the Motupiko River, and in the Rainy Creek, one of its tributaries; but, so far as could be ascertained, no gold has been found in either the terraces or the bed of the Motueka above its confluence with the Motupiko, and consequently your Commissioners did not make any examination of the land for which claims for compensation have been made above that point by Messrs. R. Ellis and G. Reay.

Your Commissioners have made careful examination of the land from the junction of the Motupiko to the ocean, in regard to which claims for compensation for prospective injury have been

made.

In view, however, of the liability of the river to change its course in its lower reaches, more especially the part near the coast, your Commissioners are of opinion that, if mining operations were carried on between the Graham River and the ocean, the destruction of a large extent of valuable agricultural land, together with the improvements thereon, would be greatly accelerated, while the value of the gold likely to be recovered would form no reasonable justifica-

tion for the widespread destruction that would most probably follow.

Seeing that the Pearce, Baton, Whangapeka, Tadmor, and Motupiko Rivers, the outfalls of which are into the Motueka above the Graham, have in the past proved to be auriferous, to a greater or less degree, and that no injury by mining operations in that particular locality would be likely to be done to the lower parts of the country already referred to, your Commissioners recommend that the Motueka River, from its confluence with the Graham to a point 2 chains above its confluence with the Motupiko, with all the tributaries on that length of it, excepting those already gazetted under the Mining Act, be proclaimed watercourses into which tailings and waste water produced by or resulting from mining operations may be discharged.

TAKAKA RIVER.

The lower portion of the Takaka River, from its confluence with the Anatoki, together with the Anatoki and Bubu Streams, having already been proclaimed watercourses under the provisions of the Mining Act, your Commissioners endeavoured to obtain evidence as to the expediency or otherwise of proclaiming the upper portion of the river, so as to allow of mining operations being carried on. The evidence tendered showed that gold had been obtained in the bed of the river about fifteen miles up from its mouth, and that the upper reaches of the river passed through an auriferous country, but that there were only two miners at present at work in the locality.

As the river flows through a very considerable extent of low-lying freehold land, and is cutting

away its banks and changing its course, there is no doubt if notice were given to proclaim the upper portion, a large number of claims for compensation would be made, and to a considerable

Several dredging claims have been applied for on the upper portion of the river, but none of those interested appeared in response to the notice to give evidence as to the auriferous value of

the ground.

In view of the large extent of low-lying land in the valley, and that no representations were made as to the desirableness of issuing a proclamation, your Commissioners recommend that the upper portion of this river be not proclaimed at the present time a watercourse into which tailings and waste water produced by or resulting from mining operations may be discharged.

OROWAITI RIVER.

The Orowaiti River takes its rise in the Mount Rochfort Range, and enters the ocean a little to the north of the Town of Westport. Its upper portion down to its confluence with the overflow from the Buller River is locally known as Giles' Creek.

In the early days of the goldfields the low terraces adjacent to this creek were found to contain rich auriferous washdrifts, and a considerable quantity of gold was obtained therefrom. Mining has been carried on in these terraces for the last thirty-four years. A considerable quantity of gravel from the erosion of the banks and from mullock-tips from tunnels has been from time to time carried down during floods, and deposited in the bed of the river lower down where there is little fall.

The tide-water comes up the river for a distance of about three miles at high springs, and this has the effect of depositing sand and gravel in the bed at the place where the waters meet. The overflow channel from the Buller River comes into the Orowaiti River about four miles up from its mouth, and above this for a distance of one mile and a half the river-bed is filled with shingle to a level with the low-lying land in sections held by Messrs. Wilson and Mears. A large portion of the land of these claimants is now covered with water in every flood, which deposits a certain quantity of silt, and, it may be added, this injury will continue whether the river be proclaimed or not. Even were no mining carried on, the gradual erosion of the banks up the stream will in a few years raise the bed to such a degree as to force the water into fresh channels through the holdings.

In regard to the auriferous character of the ground in the terraces adjacent to the river and tributaries, there are still a few miners working in the vicinity of Ballarat Creek-one of the tributaries—and in Giles' Creek. Several dredging claims have been taken up in the bed of the river, and a little prospecting has been done, which indicates that there is a probability of the

ground being payable for working the dredges.

Seeing that there is a fair prospect of dredges being used for carrying on mining operations, your Commissioners recommend that the Orowaiti River, with its tributaries, be proclaimed water-courses into which tailings and waste water produced by or resulting from mining operations may be discharged.

Your Commissioners have made a careful examination of the land for which various landholders have made claims for prospective damage, and have recommended the amounts which, in the opinion of your Commissioners, would fully compensate them for any injury their land would be likely to sustain if the river and tributaries were so proclaimed.

TOTARA RIVER.

The Totara River and tributaries flow through a considerable extent of land which is more or less auriferous. There is a flat terrace at Croninville between the main river and one of its branches on which there are several hydraulic-sluicing claims. The tailings from these claims have up to the present been discharged into the main river, but the distance is now becoming too great to permit of sufficient fall for tail-races into that watercourse. The holders of these claims stated in their evidence that in order to make their workings remunerative in the future the tailings would have to be discharged into the branch referred to.

About one mile below the point where the tailings from the Croninville claims would be discharged into the branch, a party of miners, who have claims on what is known as Shetland Beach, hold a water-race with the right to six sluice-heads of water from this branch under "The Goldfields Act, 1866," and they made objection to the branch being proclaimed, on the ground that if tailings are discharged into this branch the bed of the stream will be raised, and they will, as a

result, be debarred from leading the water into their race.

As mining is the principal industry carried on in the locality, your Commissioners recommend that the Totara River, with its tributaries, be proclaimed watercourses into which tailings and

waste water produced by or resulting from mining operations may be discharged.

Your Commissioners have examined the land for which claims for compensation have been made, and are of opinion that the amounts already recommended by Mr. David Dick, Valuer to the

Government Valuation Department, to be paid to Messrs. J. M. Powell and William Bird, the only two claimants for land compensation, are fair compensation for any injury the land is likely to sustain.

It has been stated that Mr. William Bird has transferred his interest to Mr. J. M. Powell in the one section for which he claimed.

Transcript of evidence taken by your Commissioners, together with maps, showing lands for which claims have been made along the different rivers, transmitted herewith.

We respectfully submit these matters to the consideration of your Excellency.

Given under our hands and seals this 19th day of March, 1901.

Henry A. Gordon, Chairman. Thos. Humphries. F. R. Flatman.

To His Excellency the Right Honourable Uchter John Mark, Earl of Ranfurly, the Governor of New Zealand.

MAY IT PLEASE YOUR EXCELLENCY,-

In compliance with your Excellency's Commission of the 7th day of January, 1901, to inquire into any matter or thing arising out of or connected with constituting and setting apart certain rivers and streams in the Provincial Districts of Nelson, Marlborough, and Westland as water-courses into which tailings and waste water produced by or resulting from mining operations may be discharged; also, as to the resulting benefit to mining and other industries, and the resulting injury to the agricultural and other industries, in the event of such watercourses being so proclaimed; also, the sum that will probably be required to settle claims for compensation or to take the land compulsorily; also, as to the existence of riparian rights in individual cases, your Commissioners have the honour to forward an interim report as follows:—

HORITIKA RIVER.

The Hokitika River takes its rise in the Mathias Pass, in the dividing range between Canterbury and Westland, and flows through mountainous country for a distance of twenty-five miles, when it debouches into a plain. A portion of this plain lies between the Hokitika River and a tributary, the Kokatahi River, and comprises an area of about 8,000 acres of fertile land, which is either cleared and grassed or covered with light timber and low scrub. Between the Kokatahi and Kanieri Rivers there is a further area of about 8,000 acres, a large extent of which is held in fee-

simple and under cultivation.

Gold has been found in sufficient quantities to pay for working on the beaches of the Hokitika River in the gorge above the plain referred to, but none of a payable character has been found in the Kokatahi River or any of its branches. After its confluence with the Kokatahi, about eight and a half miles from the ocean, the Hokitika River passes through a belt of highly auriferous country. On its south side are the gold-workings on Seddon's Terrace, Rimu, and Woodstock, where large deposits of auriferous drift exist, which, it is said, would give good returns from working if a sufficient quantity of water were available to carry on hydraulic sluicing on an extensive scale. The evidence tendered your Commissioners in regard to this showed that a considerable amount of capital was required to provide an adequate water-supply to work Seddon's Terrace, but, owing to the river not being proclaimed, the money could not be obtained. A considerable number of dredging claims have been taken up in the bed of the Hokitika River, between the eastern boundary of the Hokitika Borough and the junction of the Kokatahi River, and three dredges are in course of construction.

In regard to the damage the agricultural land would sustain by the proclamation of the Hokitika and tributaries, your Commissioners are of opinion that the settlers having lands on the north side of the river would not be injured to a material degree by dredging operations in the bed of the river, or by workings on Seddon's Terrace, for between the terrace and the river there is fully a mile of low-lying lands belonging to the Crown, on which the tailings from sluicing would be deposited.

Your Commissioners are of opinion that the quantity of gold likely to be obtained from the Kokatahi and its tributaries would not be commensurate in value with the extent of injury that would be done to the land if tailings were discharged into that river and different streams running into it. The land lies low, the beds of the watercourses are shallow, with very little fall, and the tailings would be likely to destroy a considerable area of land, besides greatly interfering with the drainage of the country, which is highly suitable for dairying purposes. Your Commissioners recommend, therefore, that the Kokatahi and its tributaries be not proclaimed.

A considerable sum of money has been expended in the construction of harbour works at Hokitika, and it would be undesirable to allow dredging to be carried on close to the port, as it might have the effect of silting up the harbour. The recommendation is therefore made, that dredging operations be not permitted within three miles of the ocean.

Your Commissioners recommend that the Hokitika River, from its source to within three miles of the ocean, with all its tributaries—excepting White's Creek, Raft Creek, Duck Creek, and the Kokatahi — be proclaimed watercourses into which tailings and waste water produced by or resulting from mining operations may be discharged. The amount of compensation assessed by your Commissioners, in the event of this recommendation being carrried out, is £1,540. No claimant has riparian rights.

2—H. 21.

Waimea Creek.

Gold-workings in the bed and valley of the Waimea Creek have been carried on for the last thirty-six years, and very rich auriferous deposits have been found, not only in the valley but on the terraces, which have been worked by hydraulic sluicing for the last twenty-four years. The tailings from these workings have been deposited in the creek and on the adjoining low-lying land until, in many places, there is now a depth of from 10 ft. to 20 ft. of tailings on the original ${\bf surface.}$

There are two townships in the valley of the creek—Stafford and Goldsborough. The former township is situate about three miles from the ocean and the latter two miles higher up. majority of the business people in these townships are directly interested in mining, and entirely dependent on the mining population for their livelihood. The creek has been so raised opposite these townships that in some places it is severel feet above the level of the floors of the buildings, and the side of the creek has had to be banked up with logs and stones to prevent the water

overflowing the townships.

Your Commissioners have examined the land in the valley of the Waimea Creek, about 200 acres of which are held in fee-simple outside the township sections. The land-tax value of this land is £346. The most of it is covered with silt from the creek, the bed of which is almost on a level with the land. The land-tax value of the sections and buildings in Stafford is £2,404, and in Goldsborough £2,195; the total valuation of the property affected by the creek thus being £4,945. The freehold sections in the townships, without buildings, have very little value, and a great many of the buildings, if removed, would cost as much as, if not more than, they are worth to re-erect them on higher land.

Seeing that these are purely mining townships, and the creek-bed and valley have been used for the deposit of tailings since the early gold-workings on the West Coast, your Commissioners do not think mining operations would be facilitated by the proclamation of this creek; and therefore recommend that the Waimea Creek be not proclaimed a watercourse into which waste water pro-

duced by or resulting from mining operations may be discharged.

GREY RIVER

(Including the tributaries-Ahaura River, Orwell Creek, German Gully, Noble's Creek, Stillwater Creek, and Callaghan's Creek—specially mentioned in the schedule to the Commission).

The Grey River takes its rise at Lake Christabel, and flows through an auriferous belt of country from its confluence with the Robinson to near the ocean. This belt also extends to the

source of the Little Grey, and crosses many of the other tributaries at nearly right angles.

The principal tributaries on the south and eastern side of the main Grey and Little Grey Rivers in which mining operations have been and are still being carried on, are: Stillwater, Twelve Mile, Red Jack's, Nelson, Callaghan's, Orwell, Duffer's, Waipuna, Snowy, Blackwater, Adamstown, Antonio's, and Slab Hutt Creeks, together with the Ahaura and Arnold Rivers. No gold of any consequence has been found higher up the Ahaura River than its confluence with Big Gully Creek, about five miles above the junction of the Orwell Creek and Kopara Roads. On the north and western side of the main Grey River the principal auriferous tributaries are: Langdon's, Woolly's, Alluvial, Ruby's, Bray's, Ford's, Blackball, Moonlight, and Caledonian Creeks. No gold of any consequence has been got in any of the other main tributaries on the western side of the Little Grey.

The fact that rich auriferous drifts have been worked in a large number of the tributaries feeding the main river indicates that auriferous gravels may be found in the valley and bed of the Grey River which can be worked by dredges, should the depth of gravel be not too great for them

to cope with.

The banks of the river, as well as those of many of its tributaries, are generally very low, and all the low-lying lands in the valley, which varies in width from three-quarters of a mile to three miles, have always been subject to be flooded. At some points the surface of the land is not more than 18 in. above the water in ordinary weather, and in time of floods the water covers large areas of landed property, cuts away the banks, and destroys portions of holdings. The river-bed is being gradually raised by natural causes and tailings from hydraulic-sluicing operations, which have been discharged into the river and its tributaries during the last thirty-four years.

Some of the land has already been damaged to a considerable extent; indeed, in some instances, it may be said, it has been rendered valueless. This process of gradual destruction and depreciation of the land will continue should no mining operations whatever be carried on, for the beds of all rapidly running rivers which flow through plains become raised by the accumulation of shingle from slips and erosion of the banks. Ample exemplification of this is afforded in the case of the Haupiri and Otututu Rivers, along which mining has never been carried on. Properties along these rivers, which some years ago were free from river overflow, are now being covered with

water during ordinary floods.

Many of the settlers are apparently under the misapprehension that, in the event of the river and tributaries being proclaimed, they will receive compensation for damage already done to their lands, as well as for prospective damage, and are therefore anxious that such proclamation be issued. The railway from Greymouth to Reefton is constructed up the eastern side of the Grey Valley, and its embankment is above the flood-level, and consequently affords protection to the land on that side. Your Commissioners are consequently of opinion that no compensation for prospective damage should be awarded to land so protected.

Your Commissioners have carefully examined the land for which compensation is claimed, with the exception of Sections 2 and 6, Block VI., Haupiri Survey District; Sections 1 and 40, Block IV., Kopara Survey District; Sections 1 and 30, Block XII., 1 to 7 and 31, Block XI., 33

7

11 H.—21.

and 5, Block I., 1 and 2, Block IV., Section 2, Block III., Ahaura Survey District. These sections were not examined owing to continued wet weather, which kept the river in a state of flood so that it could not be forded. Your Commissioners, however, endeavoured to obtain reliable information with regard to the likelihood of these lands being damaged in the event of a proclamation being issued.

Your Commissioners have assessed the prospective damage to the lands for which claims have been made at £9,264, but of this amount £857 is set down opposite the names of claimants having land on tributaries the proclamation of which, in the opinion of your Commissioners, would not further the interests of mining. The tributaries referred to are: Sawyer's Creek, Kaiata Creek, Omotumotu Creek, Otututu or Rough River, Haupiri River, and that length of the Ahaura River above Granite or Randall Creek. Mining has never been carried on along any of these lengths of watercourses, with the exception of Sawyer's Creek, and there is no likelihood of gold being found in sufficient quantities to cover the expense of working the ground. Sawyer's, Kaiata and Omotumotu Creeks are recommended not to be proclaimed, for the reason that one discharges into the lagoon near the Grey Harbour, and the others into the river within two miles of the harbour, and mining along them might interfere with the Greymouth Harbour-works.

Regarding the harbour-works, your Commissioners recommend that no dredging claims be allowed to be taken up or tailings from hydraulic-sluicing claims permitted to be discharged in the

river within five miles of its mouth.

A number of dredging claims and prospecting dredging areas have been taken up by claimants along the river, while other claimants have given options over their properties for dredging purposes.

There are four dredges at work on the Grey River, and an additional three are being built. On the tributaries there are three dredges at work, and four others in course of construction. The dredges at work are in some instances stacking the tailings in the beds of streams to a height varying from 15 ft. to 30 ft., and this mode of working may cause considerable damage to adjoining lands, as it will tend to divert the water into fresh channels, and cut away land which otherwise would not be liable to damage. Your Commissioners are of opinion that provision should be made by legislation, or regulation, to prevent the channels of streams being so blocked up.

In view of the large extent of mining carried on in the different tributaries, your Commissioners recommend that that the Grey River, from the township of Dobson with its tributaries to the sources—with the exception of Sawyer's Creek, Omotumotu Creek, Kaiata Creek, Otututu or Rough River, and that length of the Ahaura River, with the tributaries above Granite or Randall Creek, and those tributaries of the Grey River already proclaimed—be declared watercourses into which tailings and waste water produced by or resulting from mining operations may be discharged.

Annexed hereto are plans showing sections of land for which compensation is claimed. Those sections coloured red will, in the opinion of your Commissioners, be affected by the proclamation above recommended; those sections coloured yellow will not be affected more than they are at present; while those sections coloured brown are affected by streams which your Commissioners recommend should not be proclaimed.

Transcript of evidence taken by your Commissioners is transmitted herewith.

All these matters we most respectfully submit to your Excellency. Given under our hands and seals this 29th day of May, 1901.

Henry A. Gordon (Chairman).
Fredk. R. Flatman.
W. J. Murray.

To His Excellency the Right Honourable Uchter John Mark, Earl of Ranfurly, the Governor of New Zealand.

MAY IT PLEASE YOUR EXCELLENCY,-

In accordance with your Excellency's Commission of the 7th day of January, 1901, to inquire into matters connected with constituting and setting apart watercourses in the Land Districts of Marlborough, Nelson, and Westland by proclamation for the purpose of facilitating mining operations; to show the resulting benefit to the mining industry and resulting injury to agricultural and other industries, and to set forth the sums that will probably be required to settle claims for compensation or to take the lands compulsorily, your Commissioners have the honour to forward an interim report as follows:—

Inangahua River.

The Inangahua River from its source, near Mount Haast, in the Victoria Range, to the town of Reefton, flows through a mountainous and densely-wooded country, and, with the exception of the village at Black's Point and the immediate vicinity thereof, there are only seven small holdings in the thirty miles.

From Reefton to its confluence with the Buller the river runs for twenty-five miles through a valley of varying width, with a considerable area of low-lying land, which is partially covered with water when the river is flooded, and it is over this length that damage to any extent is likely

to be done.

On the western side of the river, between Reefton and the punt-crossing, known as "the Landing," the banks in some places are composed of high faces of gravel, which are cut away during floods, the result being a gradual raising of the river-bed. The same effect is produced, though in a lesser degree, by the erosion of the low banks on the eastern side. A considerable area of the freehold land has already been washed away, and, apart from any question of the proclamation of

H.—21.

the river, it is clear that unless a comprehensive scheme of protection-works is undertaken, there is a great probability of the whole of the low-lying land in the valley—a considerable area of which is improved and cultivated—being destroyed and replaced by a great river-bed waste; but it is questionable whether the cost of such protection-works would not exceed the value of the land.

Mining is the paramount industry in this district, and the agricultural settlers are to a degree dependent upon the mining community for the disposal of their produce, so that a discontinuance of mining operations would result in a very material depreciation in the value of agricultural properties. The settlers in their evidence admit this, and are naturally not averse to the proclamation of the river, as it would afford them the opportunity of obtaining compensation for land that will, unless protected against river-encroachment, inevitably be rendered useless, whether such proclamation be issued or not. Some of the land is too low-lying for cultivation in cereals or root-crops, as it is liable to be covered with water at every flood, and it is therefore only suitable for grazing purposes.

In regard to the auriferous value of the washdrift in the river-bed, the evidence tendered to your Commissioners goes to show that with modern appliances the ground could be worked remuneratively; indeed, it was stated by several of the settlers that men can make small wages by washing the drift in a small sluice or cradle, and some of the former have taken up dredging claims in the river-bed opposite their holdings, with the view of disposing of them to companies with the

necessary capital to work them.

Apart from the auriferous character of the washdrift in the river-bed, it is necessary, in the interests of existing mining industries, that the river should be proclaimed. Evidence was given that at the present time 10,000 tons of quartz-tailings are being discharged into the river above Reefton every month, and that another large crushing-battery is about to be erected higher up the river-side by the Inkerman Company, which will send down an additional 4,000 tons of tailings

monthly.

Claims for compensation have been made by a number of people who have sections and buildings in the township of Reefton. To prevent encroachment and the flooding of the portion of the township continguous to the river, the Inangahua County Council, aided by Government grant, has carried out protective works for some distance along the river where it passes through the town, and these works have proved effective so far as they have gone. The necessity for extension of these works so as to render the whole of the town properties immune from river encroachment and flood is unquestionable. Indeed, the works may be said to be of so pressing a nature as to make it imperative that they be entered upon without delay. Should no action be taken in the direction indicated it will be necessary, if the river be proclaimed, to pay a fairly large amount of compensation on account of these town properties in cases where the owners have preferred claims, and your Commissioners are of opinion that instead of making individual payments it would be preferable to insure the safety of the properties, by carrying out further protective works towards which a Government subsidy might be granted.

Seeing that this river has been used for the last thirty years as an outlet for waste products from quartz-batteries, and that it is required to admit of large mining operations being carried out in the future, your Commissioners recommend that the Inangahua River, with its branches and tributaries, be proclaimed watercourses into which tailings and waste water produced by or resulting from mining operations may be discharged, with the exception of Pattinson's Creek opposite Reefton, and Phillip's Creek near Inangahua Junction, and those tributaries which have already

been proclaimed.

Your Commissioners have to state that no claimant has riparian rights.

Your Commissioners have carefully examined the whole of the properties on account of which claims have been made—with the exception of an outlying one of small extent up the Inangahua River in the interior, but regarding which reliable information was obtained by them—and submit awards of compensation for prospective damages, representing a total amount of £5,196.

Should protective works on the river-side in the Town of Reefton be carried out in the manner suggested, then certain of the claimants would not, in the opinion of your Commissioners, be entitled to any compensation whatever, as the properties in such case would be liable to no injury

as a result of the proclamation of the river.

Some of the claimants have taken up dredging or mining claims on the river, and, in the opinion of your Commissioners, it appears questionable whether they are entitled to compensation, as they would be contributing to any damage the properties may sustain.

PATTINSON'S CREEK.

This creek, a tributary of the Inangahua River, may be described as a gut on the face of an almost perpendicular hill. It carries very little water, and at the bottom of the hill discharges into a race constructed by the Reefton Electric Lighting Company, which objects to the proclamation of the creek, on the ground that its land, acquired for water-race purposes, as well as the water-race itself, would be damaged by the operation of the proclamation.

At the foot of the hill lies a farm which is dependent on the water from the creek for domestic purposes. There is no doubt that, were mining carried on along the creek, the property would be

considerably damaged.

It is said that auriferous gravel-drift exists on the table-land at the head of the creek, and that it could be made payable for working by hydraulic sluicing, but there is very little water available

unless it be brought from a considerable distance.

Seeing that the outlet of this creek is nearly opposite the Township of Reefton, your Commissioners are of opinion that if water were brought on to the table-land, and Pattinson's Creek used as a tail-race from hydraulic-sluicing claims, the tailings would be liable to raise the bed of the river to such an extent as to endanger a large portion of the properties in the township.

BOATMAN' CREEK

The claims for compensation in respect of this Creek have been settled with the exception of one, by Mr. John Coghlan, whose claim was for £200. In the valley, immediately below the township of Capleston, he holds about 5 acres, which a few years ago consisted of good grass land, but which is now almost totally destroyed. A good cottage, of four rooms, on the piece of land claimed for is in danger of being washed away, and has been rendered quite uninhabitable. Your Commissioners recommend that Mr. Coghlan receive the sum of £50 as compensation.

Walker's Creek.

This creek, a tributary of the Inangahua River, is wholly bounded by Crown lands, and consequently no claims for compensation could be made. Your Commissioners recommend that this creek be included in the general proclamation of the Inangahua River and its tributaries.

WAIMANGAROA RIVER.

The Waimangaroa River takes its rise in the Mount William Range, and flows through a succession of gorges until it reaches the Waimangaroa Township, when it debouches into a lowlying level plain, and after traversing it for about three miles discharges itself into the sea about ten miles from Westport.

Gold-mining has been carried on in the bed and on the banks of this river for several years. The men so employed have obtained fairly good results, and at the present time claims are being worked in the gorges by individual miners. Three dredging claims have been applied for by one company, who have purchased some freehold land near the Waimangaroa Township for dredging purposes, and their representative informed your Commissioners that they intend putting on dredges to work the bed in the event of the river being proclaimed.

Your Commissioners have examined the different freehold properties along this river, and estimate that the sum of £511 would be fair compensation for such prospective damage as the

properties would be likely to sustain.

Your Commissioners recommend that the Waimangaroa River, with its tributaries, be proclaimed watercourses into which tailings and waste water produced by or resulting from mining operations may be discharged.

BULLER RIVER.

The Buller River takes its rise in Lake Rotoiti, in the St. Arnaud Range, and from its junction of the sea. It then traverses a low-lying plain, and eventually discharges itself into the ocean at the Town of Westport. In the Buller Valley itself, below the Hope Junction, there are comparatively small areas of low-lying land, those of any extent being: one between the confluence of the Mangles and the lower end of Fern Flat, the other being from Inangahua Junction to the place known as the "Old Diggings."

Seeing that a large expenditure has been used. with the Hope River flows through rugged mountainous country until it reaches within nine miles

Seeing that a large expenditure has been made in connection with the Westport Harbour works, and in constructing a stop-bank at the overflow-channel from the river, your Commissioners are of opinion that mining operations in the Buller River, and on its banks, should be limited to the length from its source to its confluence with the Ohika River, which is about twelve miles from the mouth. Your Commissioners are of opinion that no properties between the Ohika River and the ocean would sustain any damage from mining operations along the length referred to, and that there is no freehold land above the confluence with the Mangles that would be injuriously affected

by the proclamation of the river.

Your Commissioners estimate that 1,173 acres would be the fullest extent that would be affected by the proclamation of the above length of the river. Of this area there are 491 acres held by seven persons who have either sold land for dredging or are shareholders in mining ventures along the river. As these parties would thus be contributing to any damage sustained by properties alongside the river, your Commissioners do not consider they would be entitled to any compensation.

There are at present five dredges working on the river and a number of others in course of construction; but, so far as your Commissioners can ascertain, only two of these dredges are

working at a profit.

In view of the fact that the Buller River has for the past thirty years been used as an outlet channel for tailings without damaging freehold land to any extent, and that most of the land alongside the river belongs to the Crown, your Commissioners do not think it expedient to proclaim the Buller River a watercourse into which tailings and waste water produced by or resulting from mining operations may be discharged.

Your Commissioners have examined the freehold land on the banks of the river, and have

assessed the probable amount of compensation at £2,272.

Spring Creek.

This is a small tributary of the Buller River two miles and a half above the Inangahua Junction, and runs through freehold land held by Mr. M. D. V—, who has recently made arrangements to dispose of it to the Jubilee Dredging Company. Adjoining this freehold land a sluicing claim was taken up by the Dee Creek Hydraulic Sluicing Company, which proposed discharging the tailings into this stream instead of the Dee Creek, but the company has suspended operations for the last two years. The freehold above referred to being under offer to a dredging company, the owner of it is not, in the opinion of your Commissioners, entitled to any compensation. With regard to the other claim made by Mr. S. D. P——, in respect of the proclamation of this creek, as his land is not affected in any way his claim cannot be admitted.

3—H. 21.

As the only two claimants are therefore, in the opinion of your Commissioners, not entitled to compensation, and taking into account the large area of Crown lands in the locality, your Commissioners recommend that Spring Creek, with its tributaries, be proclaimed a watercourse into which tailings and waste water produced by or resulting from mining operations may be discharged.

14

Transcript of the evidence taken by your Commissioners is transmitted herewith, together

with plans showing sections affected by the various rivers.

We most respectfully submit these matters to the consideration of your Excellency.

Given under our hands and seals this 4th day of June, 1901.

H. A. Gordon, Chairman.

F. R. FLATMAN.

C. W. Adams.

To His Excellency the Right Honourable Uchter John Mark, Earl of Ranfurly, Governor of New Zealand.

MAY IT PLEASE YOUR EXCELLENCY,-

In accordance with your Excellency's Commission of the 7th day of January, 1901, to inquire into the expediency of proclaiming certain rivers and streams in the Land Districts of Marlborough, Nelson, and Westland as watercourses into which tailings and waste water produced by or resulting from mining operations may be discharged; as to the resulting benefit to the mining industry and the resulting injury to the agricultural and other industries; as to the existence of riparian rights in the cases of landholders along the rivers and streams within the land districts mentioned; and as to the sums that will probably be required to settle claims for compensation or to take the lands compulsorily, your Commissioners have the honour to report finally as follows:-

BARTLETT'S CREEK.

Bartlett's Creek takes its rise in the range which divides the watersheds of the Pelorus and Wairau Rivers, and flows through a narrow valley for a distance of about eight miles to its confluence with the Wairau River.

Gold-mining operations have been carried on in the low terraces and beds of several of the tributaries of this creek for over twenty years, and some fairly rich deposits of auriferous drifts have been found. The evidence tendered your Commissioners shows that, so far, no mining has been successfully carried on in the bed of the creek owing to a large influx of water being always met with, which prevented the miners bottoming the alluvial drifts. Claims, however, have been taken up recently with a view to working the ground with dredges.

One claim has been made for compensation, amounting to £2,000. Your Commissioners have examined the land for which the claim is made, and find that the bed of the creek at the present time is in places nearly level with the surface of the adjoining banks. The water in flood-time flows over a considerable portion of the land, and will continue to damage it even if no mining operations were carried on. Your Commissioners have assessed the prospective damage at £416.

Seeing that mining operations have been prosecuted for many years on the terraces and in the tributaries of this creek, your Commissioners recommend that Bartlett's Creek, with its tributaries be proclaimed watercourses into which tailings and waste water produced by or resulting from mining overations may be discharged.

Transcript of evidence, with plans showing the land affected, are forwarded herewith.

Your Commissioners have the honour to return Commission herewith.

These matters are most respectfully submitted to the consideration of your Excellency.

Given under our hands and seals this 7th day of June, 1901.

H. A. Gordon, Chairman. Fredk. R. Flatman. C. W. Adams.

Approximate Cost of Paper.-Preparation, not given; printing (2,250 copies), £9 19s.