

1890.

## NEW ZEALAND.

## PUBLIC PETITIONS M TO Z COMMITTEE.

REPORTS ON THE PETITIONS OF J. D. MCKENZIE AND OTHERS AND F. MACKENZIE AND OTHERS ON PROPOSED ALTERATIONS IN THE BOUNDARIES OF WHANGAREI COUNTY, WITH LETTERS AND MEMORANDA FROM THE INSPECTOR OF MINES AND DISTRICT ENGINEER.

*Brought up 19th August, 1890, and ordered to be printed.*

## No. 145.—Petition of J. D. MCKENZIE and Others.

THE petitioners, miners, leaseholders, and shareholders, interested in the Puhipuhi Goldfields District, pray that the boundaries of the Whangarei County may be so altered as to include the whole of the Puhipuhi Block within the said county.

I am directed to report that, in the opinion of the Committee, this petition should be referred to the Government for consideration.

19th August, 1890.

T. THOMPSON.

## No. 178.—Petition of F. MACKENZIE and Others.

THE petitioners, members of the Bay of Islands County Council and settlers in the Bay of Islands County, pray that no alteration may be made in the boundaries of the said county.

I am directed to report that, in the opinion of the Committee, this petition should be referred to the Government for consideration.

19th August, 1890.

T. THOMPSON.

Mr. G. WILSON, Inspector of Mines, to the UNDER-SECRETARY, Mines Department.

SIR,—

Warden's Office, Whangarei, 20th July, 1890.

I have to inform you that I visited Puhipuhi last week for the purpose of obtaining information respecting the matters mentioned in your telegram of the 10th instant, and now furnish the following report, with sketch-map showing the different points mentioned:—

*Reduction Plants.*—The Puhipuhi Prospectors' Company intend to erect their works on the Tangiapakura Creek, at the southern end of their special claim; and the Caledonian Company intend to erect a mill on the Wairiki Stream, to the southward of the present claims in that district.

*Approximate Distance from Main Road.*—The Prospectors' site is about nine miles from the main road by the Air-line Road, and about seven miles and a half from Grey's by the Waiotu Valley Road. The Caledonian site is about six miles from the main road by the Air-line Road, and about thirteen miles by the Waiotu Valley Road.

*Waiotu Valley Road.*—This road is being surveyed by Mr. Galbraith, Government Surveyor, from the main road at Grey's (a distance of twenty-one miles and a half from Whangarei) to the Township of Puhipuhi, on the table-land. The line of road will cross the Waipukakaho and Waiotu Rivers, both of which are subject to high floods, and will require good bridges. It is then continued along the foot of the ranges on the east side of the valley, following the deviations of the spurs and gullies, crossing the Tangiapakura Creek, and then up the alternate sides of the spur between Tangiapakura and Waiotu to the southward of the Pinnacle, and thence along the range to the Township of Puhipuhi, on the table-land. The greater portion of the formation of the road will be side-cutting; and I estimate that it would cost £1,100 from Grey's to the Prospectors' machine-site; the road to be from 12ft. to 14ft. in width. If the road is continued to the township it would cost about £300 in addition. Total, £1,400.

*Air-line Road.*—This road has been laid off by Mr. D. C. Wilson, Whangarei County Engineer. The bush is cleared for about 8ft. in width, and narrow side-cuttings made for about two miles on a narrow spur from the Wairiki to the higher table-land. The whole of the traffic from the main road to the township and mines is over this route. The road is for the first two miles through Native land, and rises for about 500ft. Very little side-cutting is necessary, as the ascent to the table-land is of an easy grade. The land is then nearly flat until within a short distance of the Wairiki River, when a short side-cutting must be made. A bridge is also required over the Wairiki. The timber from the Native-land boundary to the Wairiki has been burnt about two or three years ago, and very little clearing will be required. The road will be continued from the Wairiki up the Kai Kione Range, to the upper table-land and on to the township. I estimate the cost of construct-

ing the road from the main road to the township to be about £520, including the Wairiki Bridge and three small bridges. A suitable road to convey machinery from the Air-line Road to the Prospectors' site would cost about £75; and a road from the Wairiki Bridge to the Caledonian machine-site about £150. Total, £745.

*Schedule of Distances and Estimated Cost of Road.*—Air-line Road: Main road to township (9 miles), £520; Wairiki Bridge to Caledonian (1½ miles), £150; table-land to Prospectors (1½ miles), £75: total, £745. Waiotu Valley: Main road to Prospectors' site (7½ miles), £1,100; Tangiapakura Spur to township (3½ miles), £300: total, £1,400.

*Remarks.*—The Air-line Road is, in my opinion, the most suitable for opening up Puhipuhi, and will be the chief thoroughfare to the mines and gumfields. The Native owner of the land near the main road informed me he is willing to dedicate the road through his land. If the road is made through to the township and wherever the bush is liable to be burnt provision might be made to cause all timber and scrub cut down to be burnt off before the summer months, in order to prevent the spread of fire if it should catch accidentally.

I have, &c.,

GEO. WILSON, Inspector of Mines.

The Under-Secretary, Mines Department, Wellington.

Mr. G. WILSON, Inspector of Mines, to the UNDER-SECRETARY, Mines Department.

SIR,—

Kawakawa, 6th August, 1890.

I have the honour to forward the following report on road from Taumarere to Puhipuhi via Parson's farm, which I have inspected in compliance with your instructions by telegram of the 28th ultimo.

*Description of Route.*—From Taumarere to Tirohanga Gorge the road will be chiefly over flat and rolling table-land—a dray with a load of 15cwt. was recently taken along the present track from Taumarere to the Gorge—and I am of opinion that, for a moderate expenditure in clearing scrub and forming side-cuttings, all this part of the road could be made available for heavy traffic during dry weather. The length of this section is about seven miles.

*Tirohanga Gorge.*—This is a gully about from 250ft. to 300ft. in depth, with steep sides—the creek has a shingle bottom and very little fall at the present crossing—and, in order to form a road, side-cutting for the whole distance and a substantial bridge will be required. There are plenty of totara trees growing convenient to the site of the bridge. The length of this section is about a mile and a half.

*Tirohanga to Parson's Farm.*—The first portion of the road is up a range, chiefly open hilly country, and a considerable amount of side-cutting will be required to get round the hill. There is then a gradual descent over the same character of country to a flat, where the bush has been burnt. This part will require to be cleared for the road, but very little cutting or formation need be done for the present. From this flat down to Parson's the road will be through bush, which will have to be felled and side-cuttings made to give an easy grade. The length of this section is about three miles and a half.

*Parson's Farm to Puhipuhi Township.*—A bridge will be required to cross the Waiotu River; and the bush cleared and side-cuttings made to connect with Galbraith's Waiotu Valley Road (referred to in my report of the 20th July last) on the Tangiapakura Spur, near the dead kauri tree. The remainder of the distance to the township will be along Galbraith's Road, the whole of which will require the bush to be cleared and side-cuttings made. The length of this section is about three miles and a half.

*Gradients.*—The gradients in all cases of ascending and descending will be about 1 in 15. Mr. Triphook has laid off a grade of 1 in 16 at the Tirohanga Gorge.

*Side-cutting.*—The width of the cutting to be from 10ft. to 15ft. where required, but in many places 8ft. or 9ft. would do.

*Estimated Cost.*—Taumarere to Tirohanga (7 miles), £120; Tirohanga Gorge (1½ miles), £180; Tirohanga to Parson's (3 miles), £250; Parson's to Puhipuhi (3½ miles), £320; Tirohanga Bridge, £80; Waiotu Bridge, £250: total (15 miles) cost, £1,200.

*Remarks.*—The road from Taumarere to Puhipuhi Township will connect with the Air-line Road, and open a good thoroughfare through Puhipuhi Forest. Machinery if once landed at the township, could be conveyed from thence to either the Tangiapakura or Wairiki Creeks on branch roads to be made where required. A considerable portion of the road is over flat land; and it is my opinion that it is undesirable to break the surface where such can be avoided. The scrub and undergrowth might be cleared, but no formation at present attempted unless absolutely necessary. It would, however, be desirable to confine the greater portion of the side-cuttings to a width of 8ft. or 9ft., to enable a dray or wagon to get along, and not at present to undertake the formation of a wide and expensive road until traffic increases and a wider road is required. The bush should be felled a chain in width and, if possible, burnt before the ground gets thoroughly dry.

I have, &c.

GEO. WILSON, Inspector of Mines.

The Under-Secretary, Mines Department, Wellington.

MEMORANDUM by Mr. W. H. HALES, District Engineer, for the ENGINEER IN CHIEF *re* Line of Proposed Tramway from Puhipuhi Forest to Kamo.

In reply to your memorandum P.W. 89, 1617, No. 83/950, of the 22nd October, 1889, I have to report as follows:—

A careful examination of the routes shown on plan No. 16427 sent therewith, and also on the ground itself, has been made, and the most suitable line has been surveyed, and the plans of it and

estimates prepared. The line chosen is shown on the lithograph maps (scale one mile to lin.) recently sent down to Wellington with my memorandum 37/691 of the 12th June last, and will in every respect prove to be the most easily constructed and most advantageous line, although considerably longer than the original line running to the west of the Hikurangi Mountain and up through the Kahikatea Swamps, on the bank of the Wairua River.

Starting from the Coal-mine Station, on the Whangarei Railway, which is 343ft. above datum, or 313ft. above high-water mark, the line takes a westerly detour round the basin known as the Sodawater Flat, rising all the way with a 1-in-60 grade along a steep sidling semi-volcanic country, till at 2 miles 20 chains it gains the summit known as McDonald's Hill, 532ft. above sea. The earthworks along here will be heavy, but a good line can be got with the sharpest curve of not more than 9 chains radius. There is, however, a large supply of tufaceous rock here, which could be used for culverts, or any other building purpose.

After passing this summit the line immediately begins to descend with a 1-in-60 grade through an easy country to the Kaurihohore Station at 3 miles 20 chains, and then through rougher semi-volcanic sidling ground with a 1-in-61 grade to about 4 miles 40 chains, where the flat country known as the Hikurangi Flats begins, about 320ft. above the sea, or nearly the same height as the Coal-mine Station first started from.

At 5 miles 25 chains another station, called Mamigahahuru on the plans, will be required. There will probably be a good quantity of kauri timber carried from here, as the owners—Kauri Timber Company—of the bush to the eastward intend to start cutting soon.

From this point the line will be very easy, through open flat country, to 6 miles 40 chains, the Hikurangi Station, which is the centre of a considerable settled district. About half a mile after leaving this station the line runs up with a short 1-in-80 grade to the rise, where the limestone rocks and outcrop of coal are visible at 7 miles 60 chains, and a height of 330ft. above sea. This is a very important item in the future prospects of this line, as this coal—Hikurangi coal—is already known as a smith's coal, and is of considerably better quality than the Kamo coal, being used in Whangarei in preference, although some 3s. or 4s. a ton dearer. The seam or reef is about 10ft. thick at the outcrop, and can be traced for some three miles in a north-easterly direction. The crystallized limestone rocks will also be of some importance, and will yield a good durable building-stone, easily got and very cheaply worked. From here the line runs along easy swampy country to the Otonga Station at 11 miles, and the Whakapara River at 11 miles 22 chains, and a height of 293ft. above sea. The Otonga Station would be largely used by the settlers of the Otonga and Opuawanga districts, and should supply a considerable trade.

The Whakapara River, into which the Kaimamaku runs, will be one of the principal means of getting out the kauri timber from the Puhipuhi Forest, as all the eastern side of the bush, which is a very considerable part of it, will have to be worked by this outlet. So far as a cursory examination showed, it would be best to haul or tram the timber into the creek, float it down to the railway crossing, and there pick it up again; at any rate, it would be useless carrying the railway up into the bush, as it would have to go up the valley of the Kaimamaku, and could not rise on to high lands of the Puhipuhi bush, which are some 1,200ft. high at the upper end, close to where the silver reefs are being worked.

From the Whakapara crossing the line skirts round the base of the hills till it crosses the Wairiki Stream at 13 miles 35 chains, height 290ft. This stream rises right in the centre of the Puhipuhi Forest, and runs through the large flat some 900ft. high, which lies in the centre of the southern portion of it. The best of the kauri bush—unfortunately now partly singed by fire, and dead—lies on this flat. All this timber would have to come out by this valley, and would be picked up best just where the railway-line crosses it.

The line then continues round the foot of the hills, and reaches the Waiotu Stream at 14 miles 19 chains, height 291ft. This is the last of the main streams from the forest, and would bring down all the timber, which is not so plentiful as on the other two streams, from this side of the forest.

At 14 miles 35 chains, where the survey stops, the Hukerenui settlement and gumfield is reached, and a considerable amount of traffic would be obtained here.

The estimate of cost, forwarded to you on the 21st June last, for the whole line, complete and equipped, is £70,541 17s. 6d., divided into three sections, as follows: Om. 0ch. to 5m. 40ch., = £30,928 1s. 9d.; 5m. 40ch. to 11m. 20ch., = 5m. 60ch. long, = £24,504 16s.; 11m. 20ch. to 14m. 35ch., = 3m. 15ch. long, = £15,108 19s. 9d. The estimate is based on laying the line with 53lb. permanent-way puriri sleepers, and the usual New Zealand railway formation widths, bridges, slopes, &c.

The detour described by this line round the head of the Hikurangi Swamp, in preference to the straight line up the swamp, is advisable; first, because it connects with all the chief settlements, then it taps the coal and limestone at Hikurangi. It will enable the timber, if driven down the streams from the forest, to be picked up before it gets spread out by the water all over the swamp; and, lastly, the line itself will be on higher ground and very much less subject to floods and consequent damage.

I may mention, in regard to the kauri standing in the bush which has been burned, that the recent rains have caused the bark to come off, and there is now sufficient accumulation round the foot of the trees to feed another fire in a dry season, which, now that the trees are dry, and the sapwood getting decayed, may cause the total destruction of the whole of this burnt timber.

*Re Mr. Triphook's route.*—With reference to the letter of Mr. Triphook's to the Minister suggesting a new line, I have to report that arrangements were made with Mr. Triphook to point out this line, and an examination of the country has been made.

The line shown on the tracing P.W.D. 16389, starting from Taumarere Station, on the Kawakawa Railway, and going up the Tirohanga Valley, was first examined.

The Tirohanga Valley is a very precipitous gorge valley all the way up the hills, starting at 300ft. high within the first mile, and getting to 600ft. before three miles are reached, whilst the rise in the stream in the bottom is very little more than 100ft. The stream is full of short, sharp turns with deep side valleys, which would necessitate very heavy work and sharp curves. At the head of this stream, about six or seven miles out, the country is about 650ft. high. This might be reduced a little by tunnelling, but not to any very great extent. So that the conclusion come to is that this route would not be worth further consideration.

The other route mentioned, starting from the Akeake flag-station and going up the Karetu River, was then looked at. This is a very much more favourable looking route, and, as far as could be seen, would not present any very serious difficulty, except the bridge, 20 chains long, across the Kawakawa River at the start, till the watershed between the Owa Stream, running north-west into the Karetu, and a small stream running south-east into the Waiotu, was reached. This watershed is some 650ft. to 700ft. above the sea, and only about six or seven miles distant from the Akeake Station. If this height could not be reduced somewhat by a tunnel, which on trial might be found feasible, and thereby some 100ft. or 200ft. in height saved, this would mean a 1-in-50 grade for six or seven miles. Then, after crossing this watershed, a descent of some 200ft. would have to be made to cross the Waiotu before the Puhipuhi Forest would be reached, close to the south-west corner of the Taumatakinau Block; but here the line would be quite stopped as far as entering the Puhipuhi Forest is concerned, as immediately in front of this the Puhipuhi hills rise out of the Waiotu Valley with a short, sharp ascent to a height of 1,200ft. above the sea, which is the highest part of the forest, and from which on the top there is a general easy inclination to the southward, the apparently natural way for the outlet for everything. The line, instead of going into the Puhipuhi Forest, would have to keep to the west of it down the Waiotu Valley, which is a comparatively level route, and come out at the Hukerenui Settlement, the end of the recent survey from Kamo to Waiotu. So that beyond getting the timber in the Waiotu Valley, which is the most scattered and thinnest part of the bush, very little would be gained, as the timber from the Wairiki and Kaimamaku would still have to come down to the head of the Hikurangi Swamp to be got at.

This line would go within a short distance of the new silver-reefs at the upper end of the bush, and could be connected with an incline or wire tramway. On the whole, I consider this route very much inferior to the through route already proposed by the west side of the Ruapekapeka Mountain. The grades on that line will be better; a larger extent of country will be benefited, and, probably, extensive coal-seams found both through the Hukerenui, Towai, and Waiomio districts, whilst the question of getting out the kauri timber from the forest will be very little affected.

WILLIAM H. HALES, District Engineer.

Public Works Office, Auckland, 10th July, 1890.

[Approximate Cost of Paper.—Preparation, Nil; printing (1,200 copies), £2 5s.]

By Authority: GEORGE DIDSBURY, Government Printer, Wellington.—1890.