

CORRESPONDENCE

RELATIVE TO

THE PRESENT CONDITION OF THE FORESTS OF NEW ZEALAND.

PRESENTED TO BOTH HOUSES OF THE GENERAL ASSEMBLY, BY COMMAND OF
HIS EXCELLENCY.

WELLINGTON.

—
1869.

CORRESPONDENCE RELATIVE TO THE PRESENT CONDITION OF THE FORESTS OF NEW ZEALAND.

No. 1.

The Hon. E. W. STAFFORD to their Honors the SUPERINTENDENTS of PROVINCES and the CHAIRMAN of the COUNTY COUNCIL, Westland.

Colonial Secretary's Office,
Wellington, 28th November, 1868.

SIR,—

I have the honor to enclose a copy of a Resolution, adopted on the 7th ultimo, of the House of Representatives, desiring that steps be taken to ascertain the present condition of the Forests of the Colony, with a view to their better conservation.

In order to enable the Government to obtain the information desired by the Legislature, I enclose a list of questions on which information is required; and I shall feel obliged if you would be good enough to refer those questions to the persons best able to give that information, and would forward it to me when obtained, in order that it may be submitted to the Legislature.

I have, &c.,
E. W. STAFFORD.

His Honor the Superintendent.

Enclosure 1 in No. 1.

(No. 71-68.)

Extract from the Journals of the House of Representatives, Wednesday, the 7th day of October, 1868.

“RESOLVED, That it is desirable that Government should take steps to ascertain the present condition of the Forests of the Colony, with a view to their better conservation.”—(Mr. Potts.)

Enclosure 2 in No. 1.

Extract from Dr. Hector's Memorandum, 18th November, 1868.

1. What is the area, character, and value of forests in the district?
2. What was the original area of forest?
3. How much is still on Crown lands?
4. State what has been the relative destruction of forest on Crown lands and on freehold?
5. What causes have led to the destruction of the forest, particularizing the relative effect of accidental fires, felling by holders of bush licenses, and destruction by cattle?
6. State any damage which has occurred to agricultural districts, or other destruction of property, such as mills, &c., that has been imputed to floods, or droughts being rendered more severe through the destruction of the forests?

What is your opinion on the following points:—

1. Are bush reserves advisable, or should the forests be allowed to pass into freehold, with a view to their better conservation than at present?
2. Does the system of granting bush licenses lead to an extravagant waste of the forest; and could you propose any system of supervision by which the forests might be thinned without their absolute destruction?

18th November, 1868.

JAMES HECTOR.

No. 2.

His Honor J. P. TAYLOR to the Hon. E. W. STAFFORD.

SIR,—

Superintendent's Office, Southland, 7th January, 1869.

I detained the accompanying letter of 14th December, with its enclosed remarks in answer to Dr. Hector's questions, hoping to receive the Report of the Commissioner of Crown Lands on the subject. As that gentleman has been unavoidably engaged up country for some time, the report, which I now enclose and quite agree with, has been delayed until to-day.

I have, &c.,
JNO. P. TAYLOR,
Superintendent.

The Hon. the Colonial Secretary.

Enclosure in No. 2.

SIR,—

Crown Lands Office, Invercargill, 6th January, 1869.

Referring to my conversation with your Honor some time since on the preservation of the Timber Reserves throughout this Province, I have now the honor to report upon the subject.

The protection at present afforded to the bush reserves by placing them under the control of the police constable residing at the station in each district was no doubt, to a certain extent, a step in the

right direction, and has been productive of a certain amount of good. It was recommended by its economy, and accepted at a time when a larger sum would have been refused by the Provincial Council. The amount collected by these Rangers as license fees, contrasts strongly with the almost utter absence of such payments during the lawless period which preceded their appointment. But that the protection thus afforded is as perfect and efficient as it should be, no one can contend. Not that the Rangers thus appointed have been negligent or indifferent, for I believe they have performed their duty in every case to the utmost of their power: but because, from the very nature of their occupation, the attention which ought to be shown to the preservation of the timber can only be a matter of secondary interest to them. The districts under their charge are extensive, and their visits to the various localities seem to be made at regular intervals. Their time, I should imagine, is too fully occupied to permit them to inspect, even cursorily, the state of the reserves under their care. They must, in fact, be regarded as mere collectors of revenue and nothing more.

But however important the collection of revenue arising from the timber reserves may be, their protection from wanton and indiscriminate destruction is a matter of still greater moment. This, I am convinced, can only be effected by the appointment of a Ranger, whose whole time shall be devoted to the management of these reserves. Such a person would have no other conflicting duties to perform, and would thus be enabled to inspect them thoroughly, and by visiting the different localities suddenly and unexpectedly, would in a very great measure suppress the depredations of unlicensed, and the wanton waste of licensed cutters.

I despair, however, of being able to convince the Provincial Council that the protection of our forest land is a matter of such present and paramount necessity as to justify it in voting a salary equivalent to the services which such an appointment would entail upon the Ranger. I can only hope that the General Government will be induced to regard it not in a Provincial, but (as sooner or later must be the case) in a Colonial light, and at once set apart and undertake the administration of such reserved tracts of forest land, at any rate in our more thickly timbered districts. From my own knowledge of the settled lands in this Province, where timber is not very abundant, I am convinced that in other parts of the Colony, longer occupied but not so favourably situated in this respect as ourselves, the supply must be by this time pretty nearly exhausted. By timely attention devoted to the preservation of our bush in the manner I have suggested, I am convinced that the presence of timber, which in some parts is now a positive hindrance to the sale of land, will ere long render its value incalculable.

I have, &c.,

WALTER H. PEARSON,
Commissioner of Crown Lands.

His Honor the Superintendent.

No. 3.

His Honor J. P. TAYLOR to the Hon. E. W. STAFFORD.

Superintendent's Office,

Southland, N.Z., 14th December, 1868.

SIR,—

I have the honor to acknowledge the receipt of your circular, No. 513, of 27th November, enclosing copy of a Resolution of the House of Representatives desiring that steps might be taken to ascertain the present condition of the Forests of the Colony, with a view to their better conservation, and now annex, as you desire, replies to the various questions on this subject suggested by Dr. Hector.

I have, &c.,

JOHN P. TAYLOR,
Superintendent.

The Hon. the Colonial Secretary.

Enclosure in No. 3.

REPLIES to Dr. HECTOR'S QUESTIONS accompanying the Hon. the Colonial Secretary's Circular of 27th November, 1868, concerning the Condition of the Forests of this Province.

Superintendent's Office,

Southland, N.Z., 14th December, 1868.

1. AREA about 766,333 acres, chiefly mixed bush of totara, matai, miro, rimu, kaikatea, black and red birch, kaomahi, manuka, &c. None has been sold under 20s. per acre under the present Land Regulations; and where bush reserves have been subdivided for the purpose of sale in thickly-timbered districts, they have been put up at £5, and sold as high as £6 15s. per acre.

2. Original area about 816,000 acres, of which one-half is in Stewart's Island.

3. Still Crown lands, about 766,333 acres.

4. It is impossible to estimate the destruction that has taken place. Bush land is so plentiful in this Province that the waste of timber has only been felt in districts very thinly wooded. Very little timber has been felled for building or fencing purposes on freehold.

5. Very little destruction has been caused from firing the grass lands, and none, I should think, by cattle. The chief cause of damage has been by the abuse of bush-licenses, and in my opinion for want of efficient supervision, which can only be attained by maintaining a paid inspector, as was the case here till the Provincial Council refused to vote his salary on the resumption of the management of the waste lands by the Province. It is the opinion of the Commissioner of Crown Lands that such an Inspector should be appointed and paid by the General Government, as no alterations can, according to the Land Regulations, be made in the bye-laws for the management of timbered lands, without the Governor's sanction.

6. No such instance has occurred.

(1A.) It would be very unwise to attempt to follow the same system in all districts alike. In thinly-wooded parts of the country, where the bushes are far apart and of small extent, the obviously

best plan is to reserve the whole or nearly all of them, and, according to the extent of open land around them, the number of freeholders in each such district, the description and value of such bush, &c., either allow the purchasers to purchase the bush in something like proportion to their purchases of open land, or grant to each of them licenses to cut timber. Where bush is abundant but still scattered, I would recommend the combination of both these plans, only modified as to the proportions to be sold and the extent of the privileges granted under the licenses. Along the main bushes reserves should also be made where most accessible from various parts of the open country and connected therewith by Government roads; and outside these reserves, which should be ample, I would allow any quantity of bush to be sold to private persons. Where timber is so plentiful as it is for instance along the Longwood Range (between Howell's Roads and the Waiau Plain), or on the southern boundary of the Maitara Plain, there can be no objection (always allowing a large discretion to the Waste Lands Board to refuse when there are special reasons for doing so) to the sale of forest land at the same price as open country. As a rule all private bushes are very economically used, and the owners, if a public reserve is within convenient reach, will commonly supply themselves with fencing and building timber from these lands, leaving their own freehold as a stand-by for the future.

Where bush licenses were granted under the old Otago Ordinance, a great deal of destruction took place. Each settler was anxious only to secure for his own use the best trees that were readily accessible, no matter for what purpose required; and the consequence was that a large quantity of second-class, but still very valuable timber, was left standing among the refuse of what had been felled for use and road-clearing; and these accumulations have in many cases been set fire to, partly to open the forest for further access, partly to prevent an utterly impenetrable tangle from forming—and these fires have of course destroyed the timber standing within reach. When in such cases no fires have been resorted to, the bush has often become impenetrable from the overgrowing of the rubbish with creepers, and roads through such parts will now have to be opened more or less by fire at last. All this might be, and at one time was, avoided by the enforcement of judicious bye-laws through a paid Ranger. Whoever fells a tree should be compelled to carry off or destroy all the litter he makes in doing it, and also in cutting his way to it. For the short time we had a paid Ranger these abuses were avoided; but it is futile to hope that this can be done by the police constables, as is attempted now. As a rule it cannot be expected that they should do more than collect the license fees and see that no person within their own range cuts timber without a license. To make them do all that a Ranger should insist on their doing, would simply necessitate an increase of the number of constables. The Ranger should be under the orders of the Commissioner of Crown Lands, as he was until last year in this Province.

I am of opinion that another great preventive of waste in bush reserves would be, wherever possible, to restrict the effect of each license to a particular area, and in all cases to forbid the felling of trees for firewood—a separate license for which should be granted at a low price—which were fit for splitting or sawing.

If the question were simply, Shall licenses be granted at all or shall the bush be sold? I should decide for the latter unhesitatingly. As I stated above, such lands up country sell for from £5 to £7 per acre; and I have no hesitation in saying that one acre so sold does as much good—that is, goes as far in supplying the wants of the owners and his neighbours—as ten acres of Government Reserve, administered as it commonly is at present.

JNO. P. TAYLOR,
Superintendent of Province of Southland.

No. 4.

His Honor I. E. FEATHERSTON to the Hon. E. W. STAFFORD.

SIR,—

Superintendent's Office, Wellington, 14th January, 1869.

I have the honor to enclose the Chief Surveyor's report on the present condition of the Forests of this Province.

I have, &c.,

I. E. FEATHERSTON,

Superintendent.

The Hon. the Colonial Secretary.

Enclosure in No. 4.

Mr. H. JACKSON to His Honor I. E. FEATHERSTON.

SIR,—

Survey Office, Wellington, 7th January, 1869.

The districts in the Province of Wellington may be said at no very distant period back to have been wholly wooded. The area of the Province is about seven and a half millions of acres, of which, on a rough estimation, from four to five millions are still forest, and valued from 5s. to £1 an acre. About one million is still in Crown land, inclusive of almost inaccessible mountain ranges. The relative destruction of bush upon Crown and freehold lands cannot be estimated. Bush fires have in general been the cause of the destruction of the forests, although the bush has been fallen to some extent in agricultural districts, but in so small a portion, when compared with the whole extent of forest, as to be insignificant. In the Hutt Valley, which was some twenty-five years ago densely bushed, great destruction of property has been occasioned during the last ten to fifteen years, attributable to the severity of floods caused by the clearing of bush.

I am of opinion that there is no occasion for bush reserves for the present in this Province, and that as much bush land should be disposed of in freehold as it may be possible to find purchasers for.

I have, &c.,

HENRY JACKSON,

Chief Surveyor.

His Honor the Superintendent, Wellington.

No. 5.

His Honor J. MACANDREW to the Hon. E. W. STAFFORD.

SIR,—

Province of Otago, New Zealand,
Superintendent's Office, Dunedin, 1st February, 1869.

In compliance with the request contained in your circular letter No. 513 of the 27th November last, I have now the honor to forward the enclosed answers to queries relative to the condition of the Forests of this Province.

I have, &c.,

J. MACANDREW,

Superintendent.

The Hon. the Colonial Secretary.

Enclosure in No. 5.

REPLIES to DR. HECTOR'S QUESTIONS.

Q. 1.—What is the area, character, and value of forests in the district?

A.—The total area of forest in the Province of Otago is 1,421,000 acres; this includes the West Coast forests of the Province, approximately estimated at 350,000 acres. The forests consist principally of maple, broadleaf birch, and other inferior trees, interspersed with totara, black, red, and white pine, with occasional patches of manuka. Their value at present is estimated by their distances from towns and habitations; and where forest is abundant, it is not so valuable as the open grass land: £20 an acre may be set as their value near towns, and where distant and inaccessible they cannot be said to have any marketable value.

Q. 2.—What was the original area of forest?

A.—The original area of the forests of Otago, prior to the coming of the Maori four or five hundred years ago, after careful and extensive observation, I have concluded to have extended from forty to eighty miles inland from the sea, and ten to thirty miles from the bases of the western mountains. The interior and drier portions of the Province, such as the Maniototo, Manuherikia, Wanaka, and Waitaki plains, I am of opinion were never covered with forest, as no root-mounds are found there, and which are so abundant in all other parts of the Province, where these root-mounds are to be seen representing the positions of fallen trees. The original area then of the forests may have extended to seven or ten millions of acres. At the coming of the white man as permanent settlers, that is, in the year 1847, the original area of the forests may be set down at 1,440,000 acres.

Q. 3.—How much is still in Crown lands?

A.—About 1,356,000 acres.

Q. 4.—State what has been the relative destruction of forest on Crown lands and on freehold?

A.—The destruction of forest on Crown lands has been much greater than on freehold, unless where it has been cleared for cultivation. Freeholders watch and preserve their forests, if not cultivated, whereas licensed wood-cutters recklessly destroy the Crown property.

Q. 5.—What causes have led to the destruction of the forest; particularizing the relative effect accidental fires, felling by holders of bush licenses, and destruction by cattle?

A.—The principal causes of the destruction of forest may be said to be bush fires, caused sometimes accidentally, sometimes by shepherds burning the grass off runs, and one instance is recorded of a fire having been caused by lightning. The most valuable timber—that is, timber accessible to population—is almost invariably destroyed by accident; and the system of cutting down trees without removing the branches immensely adds to the destruction. The destruction by cattle is not apparent in this Province. I may state from experience that forest given to licensed wood-cutters is invariably burnt down in the course of three to six years. When in the interior twelve years ago, I saw 4,000 acres of forest which had been destroyed by one fire; and as no European or Maori had been known to have visited the spot previously, I concluded that it had been set on fire by lightning.

Q. 6.—State any damage which has occurred to agricultural districts or other destruction of property, such as mills, &c., that has been imputed to floods, or droughts being rendered more severe through the destruction of the forest?

A.—I know of no instance.

What is your opinion on the following points:—

1. Are bush reserves advisable, or should the forest be allowed to pass into freehold, with a view to their better conservation than at present?

Opinion.—This subject has engaged my attention frequently as a member of the Waste Land Board. I have also had from time to time to give evidence before the Provincial Council, but I do not see that any satisfactory solution of the question has been made; the point is one on which a young and an old country would differ. The poor man—that is, as this phrase is interpreted here—viz., the well-to-do labourer and working proprietor, who are the most influential political bodies, require reserves of bush set apart for them for the use of their houses and farms. The complete sale of forest therefore meets with most energetic opposition. The conclusion that I have been led into is, that the Government must meet this feeling to a certain extent by concession, and allow part of the accessible forests to be reserved for the general public, while the remainder can be sold; that remainder is the part which is preserved; the other goes to early destruction, but it satisfies the dominant class.

2. Does the system of granting bush licenses lead to an extravagant waste of the forest; and could you propose any system of supervision by which the forests might be thinned without their absolute destruction?

Opinion.—The system of granting bush licenses leads to an extravagant waste of forest. What I would advise, if the law is strong enough, is to appoint and pay Forest Wardens for the purpose of marking out the area to each licensee, no other area to be granted till the allotment is completely cleared of stem and branches; it is the leaving of the branches that creates the great havoc during

fires. Could this be done I am confident that timber would not only be cheaper to the settler, but the Crown forests would also be preserved. There would of course have to be exceptions to this stringency in the distant forests not likely to be settled, such as at Waikawa and the West Coast.

22nd January, 1869.

J. T. THOMSON,
Chief Commissioner, Waste Land Board.

No. 6.

His Honor O. CURTIS to the Hon. E. W. STAFFORD.

Superintendent's Office,
Nelson, 9th February, 1869.

SIR,—

I have the honor to forward herewith the replies of the Chief Surveyor of this Province to the questions accompanying your circular letter of the 27th November last, received at this office on the 28th December, relative to the present condition of the Forests of the Colony.

I have, &c.,

OSWALD CURTIS,
Superintendent.

The Hon. the Colonial Secretary.

Enclosure in No. 6.

REPLIES to DR. HECTOR'S QUESTIONS.

Survey Office, Nelson, 27th January, 1869.

Q. 1.—What is the area, character, and value of the forests in the district?

A.—I estimate the area of the forests in the Nelson Province at about three million acres. On the level land and in the valleys, the forest consists of the totara, rimu, rata, and what is called the white, yellow, and red pines; and on all rising ground, and nearly to the summit of all the mountains, the forest consists of the various species of the birch tribe. From the large acreage of forest land in this Province, no value is given to it above the estimated value of Crown land.

Q. 2.—What was the original area of the forests?

Q. 3.—How much is still Crown land?

A.—But a very small proportion of the original acreage of the forest in this Province has been alienated by the Crown; and in the settled districts of Nelson and the Waimeas, the planting of English and other trees has almost equalled the amount of native forest that has been destroyed.

Q. 4.—What has been the relative destruction of forest on Crown lands and on freehold?

A.—But very little forest has been destroyed on Crown land, but some few thousand acres have been cut down and burnt on freehold land.

Q. 5.—What causes have led to the destruction of the forests, particularizing the relative effects of accidental fires, felling by holders of bush licenses, and destruction by cattle?

A.—From the nature of the forests in this Province, very little injury has been caused by accidental fires. There are not any bush licenses now granted in this Province, and I do not think the quantity cut at any time under these licenses would exceed a few hundred acres. During the last year some leases have been granted, under which a few thousand acres of bush or forest have been cut down and burnt, and the land cultivated. Cattle, I think, will do much injury to the forests, both by preventing the growth of the young trees and by barking or breaking down trees of larger growth, but at present this can hardly be noticed in this Province.

Q. 6.—State any damage which has occurred to agricultural districts, or other destruction of property, such as mills, &c., that has been imputed to floods or droughts being rendered more severe through the destruction of the forests?

A.—I cannot say that, up to this time, I have heard of any damage done in this Province being attributed to the destruction of the forests, and I do not think that the very small amount of forest that has been destroyed can have affected either the floods or droughts. I think some damage has been caused by cutting down the timber on the banks of the rivers, but to what extent I am unable to say.

The above questions appear to relate rather to small districts or portions of a Province; I have therefore been unable to give more than very general answers.

Second Series of Questions.

Q. 1.—Are bush reserves advisable, or should the forests be allowed to pass into freehold, with a view to their better conservation than at present?

A.—I think it would be most desirable to make some bush reserves, and would suggest that the tops of many of the mountain ranges should be reserved on either side for a certain distance from their summit, and also that reserves of the forest should be made at the source of all rivers and streams.

Q. 2.—Does the system of granting bush licenses lead to an extravagant waste of the forest, and could you propose any system of supervision by which the forests might be thinned without their absolute destruction?

A.—I do not think that granting bush licenses would lead to a wilful waste of the forest, but I should not recommend their being granted. The large acreage of forest land in this Province makes it necessary that some should be annually cut down and burnt, this being the only profitable way in which forest land at the present time can be utilized. From the few attempts I have seen made in this Province to thin the forests, I do not think it can be done without their absolute destruction. I therefore think it would be better to make actual reserves of the forest; and would also beg to suggest that every encouragement should be given to the judicious planting of all kinds of English and other forest trees.

THOS. BRUNNER.

No. 7.

The DEPUTY SUPERINTENDENT, Taranaki, to the Hon. E. W. STAFFORD.

SIR,—

Superintendent's Office, New Plymouth, 23rd February, 1869.

I have the honor to enclose herewith a reply to the questions contained in your circular No. 32, of the 27th November last, with regard to the condition of the Forests in this Province. Those questions appear to be more applicable to parts of the Colony where the forest land being of comparatively small extent there is immediate need of interference to prevent its destruction, which cannot be said to be the case in this Province. I presume, however, for the sake of completeness, it is desirable that some information on the matter should be furnished.

I have, &c.,

THOMAS KELLY,

Deputy Superintendent.

The Hon. the Colonial Secretary.

Enclosure in No. 7.

First Series of Questions.

1 and 2. As far as has been ascertained, the whole of the Province of Taranaki, with the exception of a belt averaging say four miles wide along the coast, the upper part of Mount Egmont and the Pouakai Ranges, and some few swamps and Native clearings in the interior, is forest land. About 59,000 acres of such land is included in the blocks acquired by purchase.

3. About 11,000 acres of forest land out of the purchased blocks remain as Crown land.

4. There has not been any destruction of forest on Crown lands. On freehold land, the object of the holder is to destroy the forest as speedily as possible, to lay the land down in grass, with the exception of a small piece for shelter of his homestead.

5. The cause of the destruction of the forest in this district is by felling and burning it in the first instance. The undergrowth of the surrounding forest is soon destroyed by the cattle of the settlers; this has the effect of letting in the sun to the trunks of the large trees, which soon shrivels up the bark and thus the tree soon dies. On the occasion of accidental fires in the back clearings, the fire is driven by the wind from stump to stump and from log to log, and sweeps through the belts of standing bush, particularly when the undergrowth is destroyed; sparks of fire are also carried to the tops of pines and ratas, where there is always plenty of dry decayed vegetable matter ready to ignite, and thus the fire spreads. This will be a source of great danger when the back clearings are more extensive, for on the occasion of a fire occurring with a strong S.E. wind blowing, it soon spreads over the bush districts, and as the country is covered with smoke it is almost impossible to arrest its progress.

6. No such damage which may be imputed to the destruction of forest has yet occurred in this Province.

Second Series of Questions.

1. I consider that it is absolutely necessary that large reserves of forests should be made. I would suggest that the whole of the forest within a radius of at least ten miles from the top of Mount Egmont, should be so reserved. Also, that large reserves be made on the sides of the lower ranges, and, where practicable, on other places which would not interfere with the opening of the country, where such is desirable.

2. It has not been the custom to grant bush licenses in this Province, as there has always been a superabundance of timber land in the hands of private individuals; but if reserves were made as I have suggested, it would be necessary to make regulations as regards the stripping of towai trees of their bark. The sides of the mountain ranges are covered with large numbers of these trees, and as the demand for the bark increases, the forest would be liable to be destroyed for the purpose of securing it. But the time is probably distant when such regulations would be required.

No. 8.

His Honor W. ROLLESTON to the Hon. E. W. STAFFORD.

SIR,—

Superintendent's Office,

Christchurch, Canterbury, 19th April, 1869.

I have the honor to forward herewith copies of reports which have been furnished to me from the Chief Surveyor, and from Mr. Townsend, district surveyor, upon the forests of this Province.

I have, &c.,

W. ROLLESTON,

Superintendent.

The Hon. the Colonial Secretary.

Enclosure in No. 8.

The Forests of Canterbury.

1. THE total area covered with forest within the Province of Canterbury I estimate to be about 270,000 acres, of which 46,757 are freehold.

The forests on Banks' Peninsula contains about 64,000 acres, of which 33,000 acres are freehold. The sheltered valleys and rich lands are covered with a great variety of useful timber trees, consisting chiefly of *Podocarpus Totara*, *P. Dacrydioides*, *P. Spicata*, *Eleocarpus dentatus*, and *Manuka*. The sides and summits of the mountain ranges are covered in some cases with scrub, and in others with forest trees of considerable size.

The value of the best timbered land may be taken at from £10 to £12 per acre; the average value of the freehold would probably be about £5 per acre, and the remainder at the nominal price of £2 per acre, that being the price at which the waste lands in this Province are disposed of. From 20,000 to 25,000 acres of this forest have been more or less injured from fires.

Oxford Forest is situated due west of Christchurch, at the back of the plains, under Oxford Hill, and contains 56,000 acres, of which 2,344 acres are freehold. The timber trees consist chiefly of *Fagus Solandri*, *F. Menziesii*, and *F. Fusca*, with a sprinkling of *Nesodaphne Tawa* and *Remu Dacrydium Colensoi*. The value of the best timber land may be taken at £10 per acre. The freehold would probably average £4; and the remainder, with the exception of about 30,000 acres situate at the back of the hills, may be valued at the nominal price of £2 per acre.

Raukapuka Bush contains 928 acres, of which the whole is either freehold or reserved. The timber trees are principally *Podocarpus Totara*, *P. Dacrydioides*, *P. Spicata*, and *Manuka*. It may be valued at £12 per acre.

Waihi Bush contains 2,052 acres, of which 1,372 acres are freehold. It consists chiefly of *Podocarpus Totara*, *P. Dacrydioides*, *P. Spicata*, *Manuka*, and the different *Fagi*. The freehold may be valued at £6 per acre, and the remainder at £2.

Peel Forest contains 1,460 acres, of which 860 acres are freehold. It consists chiefly of *Podocarpus Totara*, *P. Dacrydioides*, *P. Spicata*, *Manuka*, and the different *Fagi*. The freehold may be valued at £7 per acre, the remainder at £2.

Waimatamate contains about 3,700 acres, of which 2,663 acres are freehold. It consists chiefly of *Podocarpus Totara*, *P. Dacrydioides*, *P. Spicata*, *Manuka*, and *Fagus*, in the upper parts. The freehold may be valued at £10 per acre, the remainder at £2.

Alford Forest contains about 10,000 acres; the freehold amounts to 1,329 acres. About 4,000 acres are supposed to be inaccessible. The freehold may be valued at £4 per acre, the remainder at £2. This forest consists chiefly of *Fagus Solandri*, *Menziesii*, and *Fusca*, with a sprinkling of *Podocarpus Dacrydioides* and *P. Spicata*.

There are several other small bushes scattered over the Province, some on the plains, but chiefly in gullies or valleys on the seaward faces of the hills; they are mostly freehold, and contain about 12,795 acres, and may be valued at £5 per acre.

The remaining bushes within the Province, amounting to 128,000 acres, are situated in the back-country, and are at present of nominal value only, as there is no use for the timber, excepting for the requirements of a few runholders. They consist almost entirely of *Fagus Solandri*, *F. Menziesii*, and *F. Fusca*.

2. About 300,000 acres.

3. About 223,243 acres.

4. The destruction of timber on Crown Lands and on freeholds has been in equal proportions.

5. Fires in the forest have been occasioned in different ways; sometimes purely by accident, often from utter disregard of the possible or even probable consequences of firing the scrub for the purpose of clearing bush land for cultivation, also from carelessness on the part of bushmen in leaving fires in or near their huts and camping places, and from the universal custom of allowing all lops and tops to remain on the ground after the timber has been felled. Fires also frequently extend into the forest from the custom of burning the long grass and rough growth on runs. This also is sometimes by accident, often by design. I do not think that the holders of bush licenses have been the means of causing more fires than would have occurred from any other equal number of men employed in bush work.

The greater part of the Canterbury Plains were probably covered with timber at no very distant period. Numerous indications that such had been the case could easily be seen not more than eighteen years since, and to my personal knowledge, extending over the greater part of the Province.

From whatever causes the first fires may have originated, there is no doubt that each succeeding fire penetrated further and further into the forest until such parts only remained as were protected from the fires by swamps or rivers. We have now brought the fire into these forests, and I believe that it will be utterly impossible to preserve the remaining portions for any length of time. I do not think that cattle have destroyed any appreciable extent of forest. The growth of New Zealand trees in this Province appears to be a very doubtful matter after the large trees have been removed, or after the fire has gone over the ground. Whenever the light and air is let into the forests, the Native trees appear to die out. The only trees to which this does not apply are the *Fagi*.

Many persons in Canterbury have at different times endeavoured to grow the Native timber trees, but with very little success. The flourishing plantations of Tasmania, and European forest trees which are to be seen everywhere within the settled districts of the Province have not arisen so much from any predilection on the part of the Colonists for these particular trees as from the extreme difficulty of making any progress with the Native trees.

6. I do not know of any damage which has occurred to agricultural districts from floods or droughts having been rendered more severe through the destruction of the forest.

Second Series of Questions.

1. Bush reserves are not advisable. It is impossible to exercise any efficient supervision over them, and the law does not appear to afford any sufficient protection. It has been extremely difficult to procure convictions for unlicensed cutting. I am decidedly of opinion that the forests should be allowed to pass into freehold, as the only chance of their ultimate preservation.

I am of opinion that bush licenses are not advisable, and this I believe is the unanimous opinion of every one who has been immediately concerned in the administration of the Waste Lands in Canterbury. They give men the right to go anywhere through the forests in their district, and to cut and destroy any quantity of timber. Having no permanent interest in the soil, they look only to the present, and often destroy as much valuable timber as they bring into the market. The revenue derived from this source is quite insignificant.

I think there can be no doubt but that the issuing of licenses does lead to a very extravagant waste of the forest. It also prevents its sale as freehold by destroying the valuable timber, and also by causing an unfair competition in the production of sawn timber.

I cannot recommend any system of supervision by which the forests might be thinned without their absolute destruction. I regard the destruction of all the forests, excepting those composed of the different varieties of the Fagi, as inevitable (and these will be preserved from their position, and from the readiness with which young trees come up and grow on the outskirts of the forests). I am therefore of opinion that legislation should lead rather to the encouragement of the new plantations than to the very doubtful attempt to preserve the old forests.

12th April, 1869.

C. DAVIE,
Chief Surveyor, Canterbury.

Sub-Enclosure to Enclosure in No. 8.

Mr. R. TOWNSEND to Mr. C. DAVIE.

SIR,—

Christchurch, 23rd March, 1869.

In reply to your letter containing a series of questions relating to the destruction of bush upon the Crown and freehold land in Banks Peninsula, I have the honor to send the following answers:—

1. What causes have led to the destruction of the forest, particularizing the relative effect of accidental fires, felling by holders of bush licenses, and destruction by cattle?—The principal fires which have occurred upon the Peninsula have been accidental: in fact, through starting from clearings where holders of bush licenses have been working. The circumstances have been favourable to the spreading of any accidental fire once started. The great fire which passed through the whole of the bush from the back of Ohuki, and finished at the Pigeon Bay Road, was an accidental one. The fire which destroyed the forest between Barry's Bay and Wainui was caused by one of the settlers firing the fern land in French Farm, and from thence spreading to the forest. The fire in Okain's Bay was the result of accident in its origin, but the bush being full of saw-pits and dead timber left by those who had been working under bush licenses, every facility was given for the fire to spread. I do not think that cattle do any damage to the bush, but rather good, in breaking down the underscrub. The present cause for the destruction of timber is to be looked for in the felling timber on freehold lands, and as the driest weather and most violent N.W. gales are chosen as the fittest time for burning the felled timber, it does and must spread to the uncut bush lands; and as clearing bush lands for laying down in grass is every year on the increase, I see nothing to prevent the total destruction of the bush on the Peninsula.

2. State any damage done to agricultural land or other destruction of property, such as mills, and caused by floods or droughts rendered more severe through the destruction of the forest.—I know of no damage done to land or property that can be fairly traced to the cause mentioned in this question, the only marked damage having occurred in February, 1868, when the whole country suffered equally. The only stream observed to flood quicker and contain less water in summer is the Pigeon Bay Stream. But this is not a fact established by direct observation of any one, but simply what several fancy they have noticed; but it presents the most favourable features for observation, as nearly all the land in its course has been cleared of timber and laid in permanent grass. The reason, it appears to me, why other streams have not shown more sudden floods and lessened ordinary supply, is that the head feeding streams have still the covering of undisturbed bush; and even where the fire has passed through the timber, the rapid growth of Mako-ngaio and other small trees protect the ground and watercourses from the sun, and possibly assist (according to the received notion) in causing the fall of rain.

3. Are bush reserves advisable, or should the forests be sold as freeholds with a view to their better conservation than at present?—I do not think that bush reserves will in any way tend to preserve the timber, believing as I do that the principal future cause of destruction will be the spreading of fire from freehold clearings, and the next really dry summer will in all probability finish what the last dry summer began.

4. Do bush licenses lead to an extravagant waste of the forest, and can you propose any system by which the forests might be thinned without their absolute destruction?—Bush licenses have in time gone by been the means of extravagant waste of the forest, from the difficulty of supervision and the universal encroachment upon the privilege, but as made use of at the present I do not think they do. The licenses are at present held by those working at and for the different saw-mills, and almost every timber tree is used. Formerly, the holders of licenses having generally no interest either in country or district, were utterly reckless and extravagantly wasteful, picking and choosing among the timber, destroying far more than they used. This is not the case at present; and furthermore, as it is the object of all upon the Peninsula to get rid of the timber from the ground and have grass in its place, and the timber used by the mills rarely grows except upon land that will grow grass well, the effect generally of the labours of the license-holders at the different saw-mills is preparing ground for other people to buy and settle upon. This has at least been the effect in the several saw-mills upon the Peninsula.

I have seen and communicated with the owners and workers of the several saw-mills, and they say that at the present price of timber they could not afford to buy the land only for the purpose of taking the timber from it, and would, in the event of timber licenses being stopped, have to give up the cutting of timber. This I can hardly reconcile with the amount of royalty they give to owners of timber in their vicinity.

I cannot with confidence suggest any method by which the timber might be thinned without destroying the remainder. All the plans that suggest themselves to me would so interfere with the long-established method of bushwork, and would, I am afraid, be impracticable. Nor do I think that the timber trade will last long enough upon the Peninsula to make it worth while to attempt to save timber: a few more years and it will cease to be a timber-producing district.

The timber on the Peninsula is principally totara and black pine, with a less amount of white pine, and that almost confined to the Little River Bush. There are only two areas now left on the Peninsula where the timber is untouched; about 1,500 acres between Gough's Bay and Le Bon's Bay, and that in the Little River Valleys. In two or three years all the Akaroa timber will be cut up if the mills continue cutting at the present rate. There are three mills at work in Akaroa; one in Robinson's Bay, one in Duvanchelle's Bay, and one at the head of the Bay, each cutting from 15,000 to 20,000 a week. One at Little Akaloa cuts about the same amount. One at Little River, which could, if the demand was sufficient, cut from 50,000 to 60,000. These five mills are the only points from which timber is at the present being exported from the Peninsula, and, excepting the Little River, three to five years will clear out all the available timber.

The major part of the apparent timber on the Peninsula is actually useless as timber (and useful only as a means of protecting the supply of water to the different streams), consisting principally of broad-leaf and small scrub, with an occasional timber tree here and there.

All this major area will not suffer from the axe of the holders of bush licenses but only from the extension of the fires originating at the different saw-mills and freehold clearings; and I see no possible means of checking this, as people buy bush land only for the purpose of destroying the present unprofitable growth and replacing it with grass.

I think that the fire has passed through about 30,000 acres within the last ten years.

Cyrus Davie, Esq., Chief Surveyor.

I have, &c.,

ROBERT TOWNSEND.

No. 9.

His Honor J. WILLIAMSON to the Hon. E. W. STAFFORD.

Superintendent's Office,

Auckland, 23rd April, 1869.

SIR,—

In reply to your letter No. 94, of date the 25th ultimo, I have the honor to state that upon receipt of your circular requesting a return relative to the condition of the Forests in the Province of Auckland, application was made to several persons resident in various parts of the Province for information upon the subject. Upon the receipt of the required information, no time shall be lost in preparing and forwarding the return.

I have, &c.,

J. WILLIAMSON,

Superintendent.

The Hon. the Colonial Secretary.

No. 10.

His Honor D. McLEAN to the Hon. E. W. STAFFORD.

Superintendent's Office,

Napier, 29th April, 1869.

SIR,—

I have the honor to acknowledge the receipt of your letter of the 27th November, enclosing certain questions, to which you request I will obtain a reply, in order that the Government may be enabled to ascertain the present condition of the Forests of the Colony, with a view to their better conservation.

I have now the honor to enclose the replies to the several questions contained in your letter.

I have, &c.,

DONALD McLEAN,

Superintendent.

The Hon. the Colonial Secretary.

Enclosure in No. 10.

Survey Office, Napier, 24th April, 1869.

REPLY to QUERIES about FORESTS in the Province of Hawke's Bay, contained in Memo. of Dr. HECTOR, 18th March, 1869.

No. 1. Area of forests, 360,000 acres. Character of forests: The forests are principally situated along the slopes of the Ruahine (western boundary), and along the northern boundary of the Province. Those on the lower spurs of the Ruahine and along the banks of the Manawatu, the Puketitiri, the Pohui, and the Kereru Bushes, on an aggregate about 95,000 acres, contains valuable timber, viz., totara, matai, red and white pine, while the rest is comparatively of little value.

No. 2. The original area (at the time of the settlement of the district, about sixteen years ago) was about 370,000 acres; but it is evident that within the present century at least 600,000 acres of forest have been destroyed by fire.

No. 3. 50,000 acres.

No. 4. About 100 acres freehold, about 900 acres Crown land, about 9,000 acres Native land have been destroyed.

No. 5. The fires on Crown lands have been accidental, arising principally from fern fires lighted by the settlers, the bushes worked by sawyers and splitters suffering most, owing to the inflammability of the limbs and refuse timber upon the ground. The fires on Native lands have generally been lighted by them for the purpose of obtaining fresh or sheltered lands for their cultivations. Formerly the Maoris destroyed large portions yearly, but of late years they have done so rarely, especially in the settled districts.

No. 6. This Province has suffered severely from droughts, during the years 1861 and 1867. The

destruction by floods on the alluvial flats near Napier and Porangahau has been very great of late, owing probably to the burning out of bush-gullies and scrub, and fern on the hills, which causes the water to reach the lower levels more rapidly than formerly, carrying with it large quantities of silt and clay from the bare hills. The fall from the base of the hills towards the sea being comparatively little, not only shingle, but likewise clay and fine sand are deposited in the river beds, which has caused their silting up (especially the Tutaekuri) to such an extent, that a rainfall of four inches within twenty-four hours (when the ground is previously saturated) causes more overflow than seven inches rainfall did formerly. The destruction to fencing and live stock from this cause has been very severe.

Second Series of Questions.

Referring to the additional questions, I beg to express my opinion—

1. That reserves should be made in large forests, but that the smaller ones should be allowed to be purchased without restriction, as the owners will be more likely to take the necessary steps for their conservation than Government.

2. That bush licenses (which have never been granted in this Province), should be restricted to certain districts, leaving large portions within good natural or artificial boundaries intact. I do not think that a system of supervision for thinning the forests is practicable at present.

The only suggestion although not properly coming under the heading of forests; but affecting the climate and the future supply of timber, I have to make, is—that the sides of the principal roads be planted with trees, such as walnuts, chesnuts, gums and willows, &c., according to the soil and situation, as this has been done in other countries with great success. By paying a small premium to adjoining landowners, many may be induced to do so, it being to their advantage in many respects.

CHARLES SEALEY,
Chief Provincial Surveyor.

No. 11.

His Honor W. H. EYES to the Hon. E. W. STAFFORD.

SIR,—

Superintendent's Office, Blenheim, 30th April, 1869.

I have the honor to acknowledge the receipt of your letter No. 175, of the 25th March, in which you request that you may be furnished with an answer to your circular No. 513, of the 27th November, 1868, on the subject of the Forests in the Province of Marlborough.

I regret that a reply has not been sent before this, but the delay has been occasioned by my unwillingness to forward the unsatisfactory answers which alone I can obtain to Dr. Hector's queries. The peculiar nature of the wooded portion of this Province, and its rugged and inaccessible character, preclude the possibility of obtaining any very definite information regarding it.

The answers forwarded must therefore be understood to be only an approximation to the real facts.

I have, &c.,

W. H. EYES,
Superintendent.

The Hon. the Colonial Secretary.

Enclosure in No. 11.

ANSWER to QUERIES as per Extract from Dr. Hector's Memorandum, 18th November, 1868.

1. Area of bush land, about 700,000 acres. Of this a large tract, particularly in Queen Charlotte's Sound, is covered with scrub and dwarf trees; the rest consists principally of black birch and rimu, covering the mountains and sides of the gullies, while the level land and the gullies themselves are densely covered with white and red pine and totara in addition to the other two. Value—no estimate can be formed.

2. The original area does not appear to have altered materially, the accessible parts only being partially thinned for sawing and splitting purposes. The great bulk of forest land, owing to its inaccessible character, is almost unknown, and has never been interfered with.

3. Out of the 700,000 acres, 10,000 acres nearly have been purchased; all the remainder are waste lands of the Crown.

4. No appreciable destruction appears to have taken place either on Crown lands or on freehold. A few hundred acres of the latter have been weeded of the large timber for the supply of the saw-mills, and for splitting purposes.

5. A few thousand acres of birch forest scattered over the mountain ranges occupied by the holders of pastoral leases have been destroyed by fire; by holders of bush licenses, none; by cattle, none.

6. (See answer to No. 4.)

Second Series of Questions.

1. The object in this Province would appear to be how to utilize the enormous extent of timber land in the Northern District by using it as an article of export, and not to encourage its being felled merely for the purpose of clearing for settlement.

2. The timber licenses in this Province are issued at a fixed price per acre, consequently the granting of them does not lead to an extravagant waste of the forest; but the number issued has not comprehended fifty acres. Any system of supervision for the thinning of the forests of Marlborough would be very expensive and unnecessary.

No. 12.

Mr. HEAWOOD to the Hon. E. W. STAFFORD.

SIR,—

County Chairman's Office, Hokitika, 4th June, 1869.

In the absence of Mr. Hoos, I have the honour to forward herewith the information required by the House of Representatives on the condition of Woods and Forests in the County of Westland.

I have, &c.,

J. HEAWOOD,
Chief Clerk.

The Hon. the Colonial Secretary.

Enclosure in No. 12.

Q. 1.—What is the area, character, and value of forests in the district?

A.—About two millions of acres. Most of the woods existing throughout the Colony excepting the kauri, puriri, and pohutukawa, are to be found; but the principal timbers are the rimu or red pine, matai or black pine, and kahikatea or white pine; and on the mountain sides tawhai or birch prevails.

Q. 2.—What was the original area of forest?

A. There is every evidence that the forests are of considerable age; as the quantity destroyed is a mere bagatelle, say 7,000 or 8,000 acres, the area given to Q. 1 may stand.

Q. 3.—How much is still on Crown lands?

A.—About 2,000 acres have been alienated.

Q. 4.—State what has been the relative destruction of forest on Crown lands and on freehold.

A.—Say 6,000 or 7,000 on Crown lands and 1,000 on freehold.

Q. 5.—What causes have led to the destruction of the forest, particularizing the relative effect of accidental fires, felling by holders of bush licenses, and destruction by cattle?

A.—Clearing for the purposes of gold-mining, for paddocks and gardens, as sites for towns and residences, and for roads. The climate is too humid, generally, for accidental fires; no bush licenses have been issued; the destruction by cattle is not appreciable.

Q. 6.—State any damage which has occurred to agricultural districts, or other destruction of property such as mills, &c., that has been imputed to floods or droughts being rendered more severe through the destruction of the forests.

A.—The only instances at all applicable are on the low lands in the river beds of the Hokitika and Arapura Rivers; probably their total absorption by these rivers is only a question of time, and is entirely due to the destruction of the thick scrub formerly covering and protecting the ground. For the most part this is confined to the lands reserved to the aboriginal population and leased to the Europeans.

Second Series of Questions.

Q. 1.—Are bush reserves advisable, or should the forests be allowed to pass into freehold with a view to their better conservation than at present?

A.—The whole of the County of Westland, from the snow line on the mountains eastward to the coast line westward, is covered with forest almost entirely; out of the two millions of acres which is about its area below the snow line, only a few thousand acres consisting of river bed and swamp can possibly be excepted. I do not say the indiscriminate destruction of the forest lands is to be desired, but it must be evident to every inhabitant of the County that systematic clearing is wanted; and I do not see the necessity of protective measures, at any rate for the present.

Q. 2.—Does the system of granting bush licenses lead to an extravagant waste of the forest, and could you propose any system of supervision by which the forests might be thinned without their absolute destruction?

A.—No bush licenses have been granted; the timber generally is cut by parties holding business licenses under Gold Fields Act when required for building and other uses; in other instances by squatting settlers or freehold settlers, and by the gold miner.

MALCOLM FRASER,
Chief Surveyor.

22nd December, 1868.

No. 12.

PROVINCE OF AUCKLAND.

QUESTIONS.

1. What is the area, character, and value of forests in the district?

2. What was the original area of the forest?

3. How much is still on Crown lands?

4. State what has been the relative destruction of forest on Crown lands and on freehold.

5. What causes have led to the destruction of the forest, particularizing the relative effect of accidental fires, felling by holders of bush licenses and destruction by cattle?

6. State any damage which has occurred to agricultural districts or other destruction of property, such as mills, &c., that has been imputed to floods or droughts being rendered more severe through the destruction of the forests.

What is your opinion on the following points?

1. Are bush reserves advisable, or should the forests be allowed to pass into freehold with a view of their better conservation than at present?

2. Does the system of granting bush licenses lead to an extravagant waste of the forest; and could you propose any system of supervision by which the forests might be thinned without their absolute destruction?

Replies received from the following Districts:—

- | | |
|----------------------------------|---------------------------------------|
| 1. Whangarei Highway District. | 8. Waikuku Highway District. |
| 2. Ahipara Highway District. | 9. Kaipara Highway District. |
| 3. Wairau Highway District. | 10. Pukekohe Highway District. |
| 4. Kaukapakapa Highway District. | 11. Mangapai Highway District. |
| 5. Kaurihohore Highway District. | 12. Wareora Highway District. |
| 6. Paparoa Highway District. | 13. Upper Mahurangi Highway District. |
| 7. Waipu Highway District. | |

Whangarei Highway District.

1. The forest may be reckoned at three-quarters of the whole district in extent. Character—shows a large proportion of hardwood trees, such as rata, towai, puriri, manuka, and tawa. The pines, kauri, totara, rimu, nioro, kahikatea, in swampy forest land; also some puketea, tipau, and a host of small softwood trees. On the whole there is not much kauri land in this district, and the value at present, except where it is on the side of navigable streams, next to nothing.

2. If it is meant what was the original area of forest land before the occupation of the Maoris, I should say all the country. If it refers to the time of the European settlement, I would estimate the original area at one-sixteenth more than at present.

3. I do not understand what is meant by Crown land. If Provincial land, the Waste Lands Commissioner will be better able to answer the question. I am not aware of any Crown land, except one or two lots at the Heads of Whangarei.

4. Very little if any forest has been destroyed on Provincial land. The settlers' clearings are small in comparison to the whole area; can be got easily from the late return of the Registrar-General.

5. The causes that have led to the destruction of forests are fires. No bush licenses granted in this district, except by Native owners. The destruction by cattle is of no appreciable extent.

6. None.

Second Series of Questions.

1. My opinion is that bush reserves are not advisable as they harbour Scotch thistles, but as the Provincial Government do not possess any reserves of any considerable extent it is hardly necessary to advise on this subject. I do not know any Crown land with bush upon it.

2. No bush license granted in this district, except by Natives, and I suppose I need not make any suggestions for the good of the Native owners, as to how they should administer their bush estates; it would be useless, as they would not receive any hints from the Government or through them, whatever they might do from a private individual.

J. J. WILSON.

Ahipara Highway District.

1. The forests in this district are light and not of much value except for fencing and firewood.

2. I am not able to state the area.

3. There are only a few small lots on Crown lands.

4. About fifty acres have been felled and burnt off for the purpose of cropping by settlers on freehold.

5. Firing the fern kills a few trees on the skirts of forests. I do not think cattle destroy the forests.

6. I am not aware that any destruction of property has occurred from the destruction of forests in this district.

Second Series of Questions.

1. I do not think bush reserves are advisable as settlers will always reserve a portion of their own bush, and bush land is the best for men of small means to begin on.

2. It will be impossible to thin the forests where they are being felled for the purpose of agriculture, as the fire would kill any trees left standing.

Wairau Highway District.

1. The forests of this district comprise a large breadth of light bush and heavy timber, as rimu, kauri, kahikatea, &c., but its area and value it is utterly impossible to state.

2. More difficult to answer than the former. I would refer the question to Arama Karaka, Native chief residing at Tanoa, Kaipara, the former owner of a large portion of the district.

3. Can form no idea whatever.

4. Do not think any on Crown lands have been destroyed except a few kauris for fencing. Settlers fall their own bush indiscriminately, burn it off, and lay the land down in grass, &c. Much valuable timber, especially fine rimu, is thus destroyed.

5. No bush fires ever occur; do not think a fire would run in standing bush to any extent. No bush licenses held here. Cattle do no injury that I am aware of.

6. None.

Second Series of Questions.

1. Can give no opinion.

2. I should think granting bush licenses cannot fail to cause reckless destruction of timber. I think it is very questionable whether thinning forests would not frequently do more harm than good.

by exposing the standing timber to high winds and storms. Inspectors of works, &c., now in the employ of Highway Boards, or Postmasters, &c., might be engaged at a small remuneration by the Government to look after the forests, prevent depredations, &c., and render a yearly report of their state.

Kaukapakapa Highway District.

1. About five thousand acres mixed forest with numerous clumps of kauri. Value nominal, on account of the inland situation and rugged description of country.
4. About six hundred acres, mostly freehold.
5. Accidental fires occasioned by surveyors, gum-diggers, and others, about fifty per cent. By bush licenses, *nihil*. By cattle, *nihil*.

Second Series of Questions.

1. It is our opinion that considerable reserves of forest land should be handed over to the different Road Boards for the better consideration of the timber, and for the purpose of erection and repair of public works.
2. It is our opinion that bush licenses are prejudicial to the interests of the country. If any further licenses are issued, the supervision should be left with the Board of the district wherein the license is issued.

Kaurihohore Highway District.

1. The forest in this district contains little or no valuable timber, and not worth more if the upset price (*sic*).
2. Have no means of knowing.
3. Have no means of knowing.
4. There has only been one instance of destruction (by casual fire) of about five acres on freehold land.
5. Cattle running over all wild land is considered beneficial.
6. None.

Second Series of Questions.

1. Reserves are at present a nursery for thistles, and would be better in private hands if *bonâ fide* occupiers.
2. Bush licenses undoubtedly lead to great waste. I think the valuable timber is better protected by the forest in its natural state.

JOHN O. RICHARDSON,
Chairman to the Kaurihohore Highway Board.

Paparoa Highway District.

The Paparoa District does not contain the class of forest land information upon which is requested; the land is almost entirely freehold, and no bush licenses in the district. The small reserves here are merely for the purpose of landings, &c.

RALPH G. FENWICK,
Secretary, Highway Board, Paparoa.

Waipu Highway District.

1. Concerning the area of forest in this district, in order to obtain an exact area of the same you must appeal to the district surveyors, viz., Mr. James or Dan. Wilson, of Wangarei, either of whom is perfectly acquainted with the district. Concerning the character of forest here, it is very broken, rough, and hilly, with very small surface of level ground; the value cannot, with equality, be more than from 5s. to 10s. per acre, so you can compute the value by ascertaining the area from the aforesaid persons.
2. The present state of the forest is, with very little exception, without any alteration from its original. A few blocks of land had been taken up by the settlers, so that the present area of the forest is between 2,000 and 3,000 acres minus the original area.
3. The whole of the forest is in Crown lands, with the exception of the aforesaid quantity, being freehold property.
4. No serious destruction of forests has occurred since the settlement of the Waipu, either on Crown land or freehold property.
5. No accidental fires occurred in this district, neither is there any bush license granted therein, nor is the damage by cattle of any effect.
6. All the damage done in this district has been by floods, especially on mills, bridges, and fencing. No serious damage done by accidental fires.

Second Series of Questions.

1. The forest should, in my opinion, pass into a freehold estate, according to its value.
2. As formerly stated, the system of granting bush licenses does not exist in this district, neither can I propose any system by which the forests might be thinned without their absolute destruction, but by cutting the under-scrub, which labour would be both tedious and expensive, beyond its value either to the forest or freeholder.

NIEL CAMPBELL,
Chairman of the Waipu Highway Board.

P.S.—In order to ascertain the extent of forest on the Waipu Block, I wish to notify to you that there are about 20,000 acres of freehold property in the district; all the remainder is either ti tree scrub or rough and hilly forest of various kinds of wood, with few patches of kauri trees.

Waiuku Highway District.

1. The present area is about 17,000 acres. The principal trees of value are puriri, rimu, and kahikatea. The land is of average quality, and comparatively level.
2. Twenty thousand acres.
3. About seven hundred acres.
4. On freehold land the forest has been felled and burnt off for the purpose of growing grass, &c. On Crown lands the only destruction has been the felling of timber for fencing purposes.
5. None from any of the causes mentioned.
6. None as yet.

Second Series of Questions.

1. Bush reserves are decidedly advisable.
2. I can give no opinion on the subject, as no bush licenses have been held in this district.

J. KELEHER,
Chairman, Waiuku Highway Board.

Kaipara Highway Districts.

1. Inclusive of Native land, 500,000 acres; exclusive, 100,000 acres; generally heavy bush; valueless.
2. About the same.
3. Included in the first answer.
4. None.
5. None.
6. None whatever.

Second Series of Questions.

1. Bush reserves are not advisable, but decidedly let them pass into freehold in order that they may be brought into a state of cultivation.
2. No licenses having been granted, I cannot express an opinion on the subject. All timber fallen for the use of the mills is taken off Native land. I could not recommend any system with reference to thinning the forest land with a view to preserving any portion of the timber.

CHARLES HEATH,
Whakahara.

Pukekohe Highway District.

1. About 10,000, mixed; no kauri; £2 Government value.
2. About 15,000 acres.
3. About 3,000 acres.
4. No destruction of forest on Crown lands in this district. Freehold cleared of forest for pasture and fencing.
5. No destruction of forest by accidental fires or bush licenses in this district.
6. None.

Second Series of Questions.

1. They ought to pass into freehold.
 2. They would not affect this district.
- We do not think that the forests can be thinned without their absolute destruction.

BENJAMIN HARRIS,
Chairman, Pukekohe Highway District.

Mangapai Highway District.

1. Cannot ascertain.
2. Ditto.
3. There is much useful bush on Government lots around the Mata, and generally through Mareretu, Waikiekie, Ruarangi, and adjoining blocks.
4. Considerable destruction has been going on steadily on freehold lands, but comparatively little on Crown lands.
5. A considerable extent of excellent kauri was burned about ten years ago by kauri gum diggers. I am not aware that cattle destroy any quantity of bush, or that there are any holders of bush licenses.
6. I am not aware of any particular damage, but I certainly think that indiscriminate destruction of forests will in time produce destruction of property.

Second Series of Questions.

1. Bush reserves may be advisable if watched over by a person responsible to the Government. The day will come when the forests of the North Island will be much sought after. Had the settlers good roads, a constant export of timber might be going on now.
2. There are no holders of bush licenses here; but I have often observed, with much pain, magnificent trees cut down, a few short lengths cut off for shingles, and the rest abandoned. This indiscriminate waste is of great extent.

A person should be appointed by the Government, with certain instructions, to supervise the thinning of the bush and prevent waste. The kauri trees might be valued to bushmen, and a percentage of the price for cash received might go to remunerate the "Forester" or supervisor for his trouble, thus making the appointment almost if not quite self-supporting. I am of opinion that carefully selected supervisors in each district would tend to the better conservation of the forests of New Zealand.

Mangapai, 22nd May, 1889.

WM. ORMISTON, J.P.

Wareora Highway District.

1. The area of forest is about 3,000 acres. Kauri and other woods.
2. About 3,500 acres.
4. Very little on Crown land ; principally on freehold, for cultivation of grasses.
5. Only the kauri forest burns spontaneously to any extent. The destruction of forest is by freeholders for the purpose of laying down pasture on the clearings. No appreciable destruction from other causes.
6. None.

Second Series of Questions.

1. Bush reserves are advisable to be vested in trustees, with a view to their conservation.
2. No waste of timber by bush licenses.

R. DOUGLAS, Bart.,
Chairman.

Upper Mahurangi Highway District.

The House of Representatives had better come to Mahurangi and ascertain the present condition of the forests.

JOSEPH BARTON,
Chairman, Upper Mahurangi Highway Board.
