

1903.
NEW ZEALAND.

FORESTS - CONSERVATION

(REPORTS RELATIVE TO).

Return to an Order of the House of Representatives dated the 29th September, 1903.

Ordered, "That there be laid before this House copies of all reports made by the Commissioners of Crown Lands of Taranaki, Wellington, Marlborough, and Westland referred to by them in their replies to Circular No. 507 and not yet printed—namely, (1) a report of the Chief Surveyor of Wellington to the Surveyor-General dated the 13th October, 1898; and (2) memorandum 195/72, of the 25th June, 1897—a report from the Marlborough Land Board on the various timbers in the Rai Valley."—(Mr. McNAB.)

FOREST-CONSERVATION, WELLINGTON LAND DISTRICT.

Department of Lands and Survey,
District Office, Wellington, 13th October, 1898.

I HAVE the honour to submit for consideration the following particulars and proposals relating to forest-conservation:—

Crown Lands.—The remaining Crown lands in the Wellington Land District are as follows:—

	Acres.
Lying open for selection under the Land Act	116,847
Not yet classified or opened for sale	765,079
Total	881,926

Forest Reserves (gazetted).—The attached Schedule No. 1 shows that reservations of forest and mountain lands which have been gazetted in terms of "The New Zealand State Forests Act, 1885," aggregate 111,748a. 3r. 30p.

Forest Reserves (not gazetted).—In addition there are the ungazetted blocks in the same schedule 173,982a. 2r. 0p.

Total	285,731a. 1r. 30p.
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Localities and Obstacles to Conservation.—The great bulk of this area of 285,731 acres comprises the summits and higher slopes of the Rimutaka and Tararua Ranges, and may be said to extend from near the sea at Cape Turakirae to the Manawatu Gorge, with a varying width from two to ten miles, which was excepted from the Wellington and Manawatu Railway allocation. Some years ago this reservation was encroached upon at the northern end by the settlements. The absorption by the Wellington and Manawatu Railway Company, under their contract with the Government, of the whole of the Crown lands on the western slopes of the Tararua and Rimutaka Ranges unfortunately curtailed my proposals on this subject, dated the 21st April, 1881 (copy attached), without, in my opinion, conferring on the company any commensurate advantage. The Crown was thereby deprived of the power to conserve a large area of mountainous and hilly forest- and scrub-clad country embracing the upper portions of the watersheds of the numerous rivers and streams debouching westward from the ranges inland of the West Coast and Hutt districts.

Before handing over the allocated lands to the company another reserve of 13,300 acres round Mount Wainui, inland of Paikakariki, was made. There is also a block of 1,000 acres on the Pohangina River, and 3,900 acres embracing the upper Kaiwhata basin. In addition, several smaller blocks were conserved in various localities throughout the Wellington Land District.

Insufficiency of Existing Reservations.—The above area of gazetted and ungazetted forest reserves might be considered as extensive and sufficient, but when it is borne in mind that the area of the Wellington Land District amounts to 6,811,000 acres it will be admitted that further conservation is urgently necessary. A glance at the general map will demonstrate that in numerous localities no provision has so far been made to set aside areas of forest lands.

It is impossible at this comparatively late period, when nearly all the most suitable and accessible forest country has been alienated from the Crown, to give effect to a general forest-conservation scheme applicable to this land district, and, I may say, essential to the well-being and prosperity of the community.

Objects of Conservation.—The objects sought to be attained by the aforesaid forest-conservation proposals of 1881 include the following:—

- (1.) The conservation of springs at the sources of the principal rivers and streams to insure the maintenance of the water-supply of the country.
- (2.) The prevention of the degradation of the surface of the mountains and deposit of detritus in the valleys.
- (3.) To insure the gradual distribution of rainfall, avoidance of the rapid descent of storm-waters and consequent sudden high floods more disastrous than those heretofore experienced.
- (4.) To maintain the climatic equilibrium, and to protect the native flora and fauna.
- (5.) In the low country, to conserve scenic effect and shelter; and by preserving the forest and scrub along the rivers and streams to also maintain the banks of the latter.
- (6.) To meet the economic and domestic requirements of the people.
- (7.) It was also proposed to reserve low coasts and tracts of country where protective planting might be necessary to fix sand-dunes.
- (8.) Lapse of time and inroads upon the available milling-timber appear to point to the necessity for the acquisition of areas of country suitable for reforestation.

Resumption or Acquisition of Forest Lands.—The question as to whether the State would be justified in acquiring extensive blocks of the remaining waste forests, whether in the hands of Europeans or Natives, and isolated clumps of bush which beautify and make the colony attractive, is submitted as worthy of consideration. The preservation of forest and scrub alongside rivers in the upper reaches, in cañons and mountain gorges, demands attention, especially where the Crown has alienated the lands. For unique beauty this latter class of scenery is unsurpassed, and its preservation is an essential factor in the determination of the tourist traffic of the future, and its importance of which is already realised. The proposal of resumption is beset by serious but not insurmountable difficulties, particularly as it can be demonstrated that it is fraught with issues vital to the welfare of the nation. Viewed in this light individual might be expected to give way to the common interests.

<i>Proposals.</i> —To supplement the aforesaid forest reserves of	...	...	285,731 acres
it is recommended that the following be added: Surveyed lands, 41,786 acres;			
unsurveyed lands, 323,899 acres	...	...	365,685 "
			651,416 "

In addition it is recommended that the following lands be held back from sale:

Surveyed sections, 26,942 acres; unsurveyed lands, 170,345 acres	...	197,287 "
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Making a total area of ... 848,703 "

Particulars as to the above 562,972 acres additional lands are set forth in the attached schedules. This area is made up of 68,728 acres of surveyed Crown lands weighted with £15,237 6s. 5d. loading for roads to open up the sections and £414 17s. for improvements effected by former lessees. The balance of 494,244 acres comprises unsurveyed Crown land weighted with £2,894 17s. 2d. for road-works to open up the blocks. It will be seen from inspection of the schedules that the 68,728 acres include forfeited and undisposed-of sections scattered through the various settlements, the main object of their conservation being to provide timber for constructive and domestic purposes and to preserve scenery.

The unsurveyed Crown lands proposed to be conserved or held back from sale are likewise distributed throughout the length and breadth of the Wellington Land District wherever lands are still under the control of the Crown. The principal blocks and localities are as follows:—

The National Park on Tongariro, Ngauruhoe, and Ruapehu being inadequate in area, it is proposed to extend the limits of the same so as to embrace the whole of the Crown lands on the western and southern slopes and plains to the westward of these mountains, in order to conserve the whole of the country down to the proposed North Island Main Trunk line of railway for some distance northward and southward of Waimarino Plains, and also to include some of the forest lands westward of the said railway-line. This addition, roughly speaking, comprises about 100,000 acres. On the eastern side of these mountains the Crown has acquired blocks of land amounting in area to 13,730 acres, which are included in my proposals for the extension of the National Park. I have come to the conclusion that the National Park should ultimately include the whole of the country from Lake Taupo southward to the Murimotu Plains, being bounded, roughly speaking, on the western and eastern sides by the two great railway and road routes from Waiouru to Taumarunui on the one side and to Tokaanu on the other. Though a large proportion of the country thus indicated is still in the hands of the aboriginal owners, it would be well to take a broad view of such an important subject. It may be necessary, by means of special legislation, to give effect to proposals which would adequately meet the requirements of the colony.

Kaimanawa and Ruahine Ranges.—The proposals include the conservation of 45,146 acres on the Kaimanawa at the head of the Rangitikei River, being the whole of the available Crown lands in that locality. It is also proposed to conserve the remaining Crown lands on the western slopes of the Ruahine Ranges from the head of the Kawhatau River southward to the Manawatu Gorge. This will involve the conservation of about 70,000 acres of country lying at the back of the various settlements, and should be supplemented by the acquisition of the intervening Maori lands.

Tararua and Rimutaka Ranges.—The next important proposal may be described as the extension of the existing reservations on the Tararua and Rimutaka Ranges from the Manawatu Gorge to the sea at Palliser Bay. About 80,000 acres of Crown lands would thus be absorbed into the existing reservations, care being taken in the first instance to excise small portions adjacent to the existing settlements which may be found suitable for occupation and improvement.

Puketoi Ranges.—Out of the remaining Crown lands in the Puketoi country I have included in the schedules about 20,000 acres of the summits and higher slopes of the ranges.

Waikanae.—I am of opinion that the 1,807-acre block cut out of the Wellington Fruit-growers' Settlement at Waikanae should be conserved.

Haurangi.—Another considerable proposal includes about 39,000 acres of the high isolated mountains called Haurangi, situated at the southern end of the Wairarapa district, east of Palliser Bay.

Lands to be held back.—As regards the unsurveyed Crown lands proposed to be held back from sale, it will be noticed by the schedules that large areas are situated in the Waimarino country and north of the Kawhatau, between the Rangitikei River and the summit of the Ruahine Range. There are, in addition, several smaller blocks in various parts of the back country.

General Objects in View.—Having thus indicated in a general way the position of the various blocks proposed to be reserved or held back from sale, I may say that the proposals as a whole are made principally with the object of preserving the magnificent scenery of the interior, and especially that on the high mountain-ranges; to control the distribution of the rain-waters so as to maintain springs and streams and prevent more disastrous floods in the low country than are at present experienced; and also to preserve, as far as possible, the unique flora and fauna of New Zealand. As regards ordinary forest lands at a lower elevation, the proposals have for their chief object the conservation of timber valuable for constructive and other economic purposes. A large factor taken into account in framing these proposals is the necessity that exists for the preservation of blocks or patches of timber throughout the whole of the settlements for the use and convenience of the people. Care has also been taken to recognise the importance of maintaining wherever opportunity offers strips and patches of bush, so as to preserve some remnants of the beautiful forest scenery of the districts.

Acquisition and Resumption of Forest Lands.—In order that the best possible conservation scheme for the Wellington District may be fully considered it is necessary to revert to the suggestion that the Crown might acquire by purchase the control of waste Maori lands, and in some instances freehold land in the possession of Europeans. Should this view be accepted, attention should be given to the enlargement of the National Park, as already indicated, by the acquisition of the bush lands owned by the Natives in the district about Rotoaira and on the great Ruapehu-Tongariro Range. The fine beech forest on the Kaimanawa Ranges east of the Waikato River might also be acquired. The block of land between the Rangitikei River and the summit of the Ruahine Range, on which stands Aorangi Mountain, appears to be desirable of acquisition. The Native lands now lying waste and useless to the owners on the western slopes of the Ruahine Ranges might also be acquired. There are large tracts of Native lands between the Waitotara and the Wanganui Rivers, and eastward from the latter river to Murimotu, and as far northward as the Whirinaki Survey District, which should be dealt with under Government control, so as to insure the conservation of forest and scrub on the higher and poorer class of lands, and the milling of all suitable and accessible heavy-timbered lands.

On inquiry I find that the Wellington and Manawatu Railway Company have not yet disposed of the area of about 100,000 acres of lands allocated to them under their contract with the Government. These endowment lands are situated generally adjacent to the existing forest reserves on the ranges inland of Tokomaru, Shannon, Kereru, Manukau, Otaki, Te Horo, and Waikanae. In addition the company still holds two large tracts of country east and west of the Akatarawa Valley, which are also contiguous to existing Government forest reserves. I am not aware whether the company would be disposed to treat with the Crown in regard to resumption of this high country, but I submit that the question is well worthy of consideration.

Objections, Difficulties, and Precautions.—Objections are often raised by settlers and others to the setting-aside of blocks of forest land, and even to the existence of reserves already established, and attempts are made to have them unreserved, or applications are made to the Land Boards to cut and utilise the timber. In some instances even small clumps of bush which have been set aside on account of their great beauty are trespassed upon, hacked about, and turned into cattle-runs. It is time that a public interest was created and fostered so as to insure by the action of the whole community the preservation of the growth upon all such reserves. An essential safeguard to this end is to effectually fence in all reserves, whether large or small, to prevent intrusion of all stock, and to control as far as possible the actions of those who enter upon and travel through the reservations. It might be apprehended that the setting-aside of so much of the remaining Crown lands, whether by conservation or temporarily holding them back from sale, would be detrimental to the interests of settlers, and that it would also affect the revenue of the Lands Department. There can be no objection as regards the great bulk of the area being dealt with; but it must be admitted that those settlers whose properties are situated contiguous to some of the lands included in these proposals would labour under the disadvantages and drawbacks which sparse population necessarily entails upon pioneer settlers, by the lack of assistance from adjoining neighbours in the fencing of their holdings and in the risks which must follow the working of the forests lands and the burning-off of the residue at a later period of the settlement of the country.

Against this must be placed the advantage that must accrue to such settlers later on from the establishment of sawmills and the consequent demands by the employees for the produce of the farmers. In order to minimise the above-mentioned drawbacks it appears to me to be but fair

that the Crown should assist the adjacent settlers in the fencing-off of the common boundary in those localities where sections of bush are reserved or held back from sale. The liability under this head might be covered by the royalties gathered from the working of the forests throughout the whole district. As regards the effect upon the revenue of the Lands Department, it must be conceded that there would be a falling-off in the areas selected for settlement and in the revenue derivable therefrom. On the other hand, the Government would be recouped in years to come by the royalties payable by the mills engaged in the utilisation of the timber.

In giving effect to these proposals we must not lose sight of the fact that some of the lands to be reserved or held back are loaded with the estimated cost of roads, and to a very slight extent for the value of improvements effected by former lessees; but the liability under this head is far less than appears on paper, for by curtailing the extension of roads or postponing the expenditure the sinking fund and interest on the amount should be reduced to an insignificant figure.

Financial and General.—The establishment of extensive conservations will entail upon the Crown additional responsibilities in safeguarding and protecting the reserves, and may bring also additional expense in years to come in the rabbiting of portions of the country. It follows also as a matter of course that sooner or later Rangers and other officers must be maintained to effectually insure the conservation and proper working of the forests; but here again the revenue derivable from the produce of the forests should more than recoup the cost of administration.

Estimates have been made as to the quantity of timber per acre of New Zealand forests. Some years ago it was estimated at from 15,000 to 30,000 superficial feet. A well-known miller recently assured me that the labour-value of utilising and working the timber on an acre of ordinary heavy bush land in the Rangitikei district amounts to about £18. Whatever may be said of these estimates, it cannot be gainsaid that there is no more advantageous and profitable labour-employing industry in the colony than that presented by the utilisation of the forests. This affords one of the strongest arguments in favour of the conservation, where possible, of milling-timber. It has been suggested as a novel idea that the State might undertake the cutting and distribution of the timber from the forests. As this has already been done in other countries, there is no reason why it should not be applied in New Zealand under proper condition at an opportune time. Judging by what has occurred in the past in the older countries of the world, or even already in this new colony, it seems safe to assume, unless precautions are taken, that within a comparatively short period the whole of the forest in the Wellington Land District will have disappeared as the ordinary result of settlement and disastrous fires which periodically sweep over the face of the country. Our indigenous forests are so extremely sensitive and subject to destruction that I am led to the conclusion that it will be very difficult, even under the most stringent regulations and safeguards, to preserve them, except in specially favourable localities; nevertheless, no one can doubt that it is the duty of the Crown and the colonists to do all in their power to postpone, or prevent altogether, such a deplorable result. Likewise, arguing from analogy and altered conditions in other countries, it seems inevitable that, should there be widespread and general destruction of forest, scrub, and coarse vegetation throughout the several districts, the loss to the colony and community will be incalculable, for the whole face of the country must be affected by the constant exposure to rain and sun; the better portions of the soil will be washed off the higher lands, the surface must become hardened and less fertile, and the constant productive capabilities of the land must materially deteriorate. The exposed watersheds must tend to the drying-up of springs and watercourses, bringing disaster in the form of drought. On the other hand, the rapid distribution of the rain-waters, and their accumulation in rivulets and rivers, must lead to the washing-down and removal of the soil from the mountains and hills, the scouring of channels, the flooding of low-lying lands and the deposit of detritus thereon. It is unnecessary to again revert to all the important considerations which should spur the community, by every means in its power, to avoid such disastrous consequences as are indicated. It is sufficient here to say that, under such conditions, the country would be afflicted and impoverished, and certainly would be no longer the beautiful and attractive region it now is.

It might be thought by some that I have grossly exaggerated the danger and the result of total forest-denudation, but I think I am justified in repeating that the evidence of experience and results in other countries, and even in this colony, furnishes incontestable proof of the necessity for a general and comprehensive scheme of forest-conservation. It is probable the time is not far distant when the task of reforesting some portion of the country will have to be faced.

On receiving your approval of the foregoing suggestions steps will be at once initiated for the withdrawal from sale of the Crown lands affected, to be followed up by notifications of conservation. Until approved the daily sales of Crown lands trench upon the area included in these proposals.

Supplementary proposals will follow as opportunity offers.

The Surveyor-General, Wellington.

J. W. A. MARCHANT,
Commissioner of Crown Lands.

SCHEDULE 1.
Forest Reserves gazetted.

County.	Block.	Section.	District.	Area.			Gazetted.		Designation.
							Date.	Page.	
Pohangina ...	VII.	48	Pohangina ...	A. 1,000	R. 0	P. 0	August, 1891	891	Forest. Preservation of timber.
Oroua* ...	...	...	Gorge ...	589	0	0	Nov., 1881	1484	
Pahiatua ...	...	...	Mangahao ...	5,583	0	0	Nov., 1881	...	Ditto.
Oroua ...	...	...	Gorge ...						
" ...	...	...	Kairanga ...	200	0	0	Oct., 1886	1304	State forest.
Pahiatua ...	...	...	Makuri ...						
Wairarapa South ...	...	...	Waiohine ...	36,400	0	0	July, 1881	959	{ Preservation of timber.
" ...	...	...	Eritonga ...						
Hutt... " ...	...	...	Akatarawa ...	13,300	0	0	July, 1881	959	Ditto.
" ...	...	...	Paikakariki ...						
" ...	...	...	Akatarawa ...	31,400	0	0	July, 1881	959	"
Wairarapa South ...	...	...	Rimutaka ...						
Hutt... " ...	...	...	Wairarapa ...	9,576	0	0	Nov., 1881	1484	"
" ...	...	...	Onoke ...						
Horowhenua ...	...	...	Pencarrow ...	3,900	0	0	Dec., 1897	...	Forest.
Wairarapa North ...	...	...	Belmont ...						
Pahiatua ...	...	...	Arawaru ...	6,500	0	0	1885	1037	{ Timber and water-supply.
Wairarapa North ...	VI., X.	3	Tararua ...						
Pahiatua ...	...	...	Mangahao ...	180	0	0	Mar. 10, 1887	...	Totara.
Wairarapa North ...	I.	7	Rewa ...						
" ...	I.	11	Belmont ...	95	3	16	Dec. 6, 1888	1347	Forest.
Wairarapa South ...	V., IX.	100, 101, 102, 105	Rimutaka ...						
Wairarapa North ...	VII.	12	Mangahao ...	213	0	11	Dec. 6, 1888	"	"
" ...	X.	3	Mangaone ...						
Oroua† ...	III.	Part 462	Wairarapa ...	1,941	1	21	May, 1896	715	"
Pahiatua ...	...	...	Tararua ...	292	0	32	Dec. 6, 1888	138	"
Kiwitea ...	...	...	Puketoi ...	28	2	0	April 26, 1889	No. 28	"
Pahiatua ...	...	...	Gorge ...	57	0	0	...	...	"
Wairarapa North ...	...	...	Mangahao ...	22	0	0	Sept. 26, 1889	56	Totara.
" ...	...	...	Apiti ...	119	2	0	Sept. 26, 1889	56	Forest and water.
Wairarapa South ...	...	...	Makuri ...	182	0	0	Oct. 29, 1891	80	Forest.
Wairarapa North ...	...	...	Mangaone ...	79	1	38	Dec. 6, 1888	}	Totara.
" ...	...	...	" ...	90	0	0	Dec. 6, 1888		
Total ...	...	...	...	111,748	3	38			

* Near Wharite. † Conveyed from D. McKenzie.

Forest Reserves ungazetted.

County.	Block.	Section.	District.	Area.			Remarks.	
Oroua	III.	374	Gorge ...	250	0	0	Preservation of timber.
"	Waiohine ...	165,321	0	0	{ Forest from Rimutaka to Arawaru.
"	Taungata ...				
"	Kaitawa ...				
"	Mikimiki ...				
"	Waiopehu ...				
"	Tararua ...				
Wairarapa South	X.	291	Arawaru ...	980	0	0	Forest.
Pahiatua	VII.	61	Wainuioru ...	67	0	0	"
Rangitikei	X.	50	Pohangina ...	36	0	0	"
"	X.	51	Hautapu ...	39	2	0	"
"	IV.	41	" ...	135	0	0	Totara.
"	XII.	6	" ...	337	0	0	Forest.
"	IV.	25	Mangawhero ...	56	2	0	"
Pohangina	II.	11A	Tiriraukawa ...	50	0	0	Totara.
Kiwitea	XI.	42	Pohangina ...	323	0	0	Forest.
"	XI.	27	Ongo ...	24	0	0	"
"	X.	19	Hautapu ...	97	0	0	Totara.
Wairarapa North	XIV.	7	" ...	789	2	0	Forest.
"	XIII.	174	Tararua ...	379	0	0	"
"	IV.	6	Mangaone ...	625	0	0	"
"	I.	16	Mikiniki ...	253	0	0	"
Upper Wanganui	Kopuaranga ...	2,700	0	0	"
Horowhenua	XV.	...	Upper Waimarino ...	1,520	0	0	"
Total	Kaitawa ...	173,982	2	0	

Total area of gazetted reserves ... 111,748 3 38
Total area of ungazetted reserves... 173,982 2 0

Grand total ... 285,731 1 38

SCHEDULE 2.

Summary of Crown Land in the Provincial District of Wellington proposed to be reserved and held back for Forest Purposes.

Proposed to be	Description.	Area.	Loading for Roads.	Improvements: Balances.	Total Liability.	Folio.
Reserved	Surveyed ...	Acres. 41,784	£ s. d. 8,556 0 0	£ s. d. 60 9 0	£ s. d. 8,616 9 0	2
	Unsurveyed	323,899	2,752 19 2	...	2,752 19 2	3
		365,685	11,308 19 2	60 9 0	11,369 8 2	...
Held back	Surveyed ...	26,942	6,681 6 5	354 8 0	7,035 14 5	4
	Unsurveyed	170,345	141 18 0	...	141 18 0	5
Total	...	197,287	6,823 4 5	354 8 0	7,177 12 5	...
Grand total	...	562,972	18,132 3 7	414 17 0	18,547 0 7	...

SCHEDULE 3.

Summary showing Acreage and Liability on each Block of the Crown Land therein proposed to be reserved.

Surveyed Land.

Subdivision.	Block or Settlement.	Area.	Loading for Roads.	Improve- ments: Balances.	Total Liability.
Eastern	Rising Sun ...	A R. P. 4,961 0 0	£ s. d. 1,240 5 0	£ s. d. ...	£ s. d. 1,240 5 0
	Pahiatua No. 1 ...	100 0 0	25 0 0	41 5 0	66 5 0
	Masterton Reform ...	1,350 0 0	237 10 0	...	237 10 0
	East Puketoi ...	2,564 0 0	641 0 0	...	641 0 0
	Pahiatua No. 4 ...	277 0 0	69 5 0	...	69 5 0
	Mangahao ...	279 0 0	...	...	...
	Waiwera ...	400 0 0	150 0 0	...	150 0 0
	Woodville and Kaikoura	3,120 0 0	780 0 0	...	780 0 0
	Christchurch ...	1,200 0 0	300 0 0	...	300 0 0
	Kakariki ...	200 0 0	65 0 0	...	65 0 0
	Waiohine ...	3,605 1 38	...	...	...
	Haurangi runs ...	3,250 0 0	...	...	...
		21,306 1 38	3,508 0 0	41 5 0	3,549 5 0
Western	Horopito ...	263 0 0	65 15 0	...	65 15 0
	Rangiwaera No. 2 ...	2,000 0 0	500 0 0	...	500 0 0
	Hunterville No. 1 ...	3,400 0 0	850 0 0	...	850 0 0
	Hunterville No. 2 ...	600 0 0	150 0 0	...	150 0 0
	Palmerston North Knights of Labour	920 0 0	230 0 0	1 0 0	231 0 0
	Hunterville No. 3 ...	2,000 0 0	500 0 0	...	500 0 0
	Marton Nos. 1 and 2 ...	4,400 0 0	1,540 0 0	5 14 0	1,545 14 0
	Onslow ...	2,000 0 0	500 0 0	...	500 0 0
	Umutoi and Pohangina...	1,846 0 0	461 10 0	12 10 0	474 0 0
	Salisbury and Delaware	800 0 0	200 0 0	...	200 0 0
Malton ...	203 0 0	50 15 0	...	50 15 0	
Lower Aorangi ...	240 0 0	...	...	...
Waikanae ...	1,807 2 5	...	...	...
Total	...	20,479 2 5	5,048 0 0	19 4 0	5,067 4 0
Grand total	...	41,786 0 3	8,556 0 0	60 9 0	8,616 9 0

Unsurveyed Land.

Subdivision.	Block.	Area.	Loading for Roads.		
		Acres.	£	s.	d.
Eastern ...	North-east Puketoi ...	3,590	1,181	14	2
	Kaiparoro ...	10,000	...	...	...
	Te Mara ...	15,000	...	...	...
	Kaitangata ...	14,000	...	...	...
	South Waiohine ...	3,850	...	...	...
	Haurangi ...	26,250	...	...	...
	White Rock... ..	9,520	...	...	...
		82,210	1,181	14	2
Western ...	Waimarino (part) ...	43,493	...	...	...
	Okahukura, Tawai, &c. ...	18,486	...	...	...
	Rangipo North ...	13,730	...	...	...
	Kaimanawa 2A ...	26,360	...	...	...
	Kaimanawa 3A ...	18,786	...	...	...
	North Horopito ...	5,568	1,392	0	0
	Rangitaua North ...	8,420	...	...	...
	Rangiwaea No. 1 ...	10,836	...	...	...
	Raetihi ...	4,085	...	...	...
	Kawatau ...	717	179	5	0
	Ruahine ...	24,865	...	...	...
	Ngamoko ...	5,216	...	...	...
	Umutaeroa ...	8,608	...	...	...
	Tamaki ...	12,011	...	...	...
	Wharite and north of Wharite ..	4,460	...	...	...
	Gorge ...	2,400	...	...	...
Waiohanga No. 1c ...	771	...	...	...
Railway reserve ...	9,977	...	...	...
Pencarrow and Onoke ...	22,900	...	...	...
Total... ..		241,689	1,571	5	0
Grand total ...		323,899	2,752	19	2

SCHEDULE 4.

Summary showing Acreage and Liability on each Block of the Crown Land therein proposed to be held back from Sale.

Surveyed Land.

Subdivision.	Block or Settlement.	Area.			Loading for Roads.			Improvements: Balances.			Total Liability.		
		A.	R.	P.	£	s.	d.	£	s.	d.	£	s.	d.
Eastern	Pahiatua No. 2 ...	200	0	0	50	0	0	...	...	...	50	0	0
	Mount Cerberus XI. ...	987	1	7	246	16	5	...	...	...	246	16	5
	Small grazing-runs, Rewi	601	2	8	...	...	...	...	...	...	...	...	...
	Wainuioru ...	519	3	0	...	...	...	...	...	...	...	...	...
	Wairarapa VI. ...	83	0	0	...	...	...	...	...	...	...	...	...
		2,391	2	15	296	16	5	...	...	...	296	16	5
Western	Gladstone ...	3,750	0	0	937	10	0	228	2	6	1,165	12	6
	Marton No. 4 ...	8,800	0	0	2,200	0	0	2	0	0	2,202	0	0
	Marton No. 3 ...	3,002	0	0	750	10	0	...	...	...	750	10	0
	Waimarino Small Farms	1,500	0	0	537	10	0	66	3	0	603	13	0
	Horopito ...	1,089	0	12	272	5	4	...	...	...	272	5	4
	Clifton No. 1 ...	400	0	0	100	0	0	...	...	...	100	0	0
	Clifton No. 2 ...	550	0	0	137	10	0	14	2	6	151	12	6
	Wanganui Un. East ...	2,578	0	0	644	10	0	...	...	...	644	10	0
Wanganui Un. West ...	675	0	0	253	2	6	44	0	0	297	2	6	
Awarua ...	2,296	1	30	551	12	2	...	...	...	551	12	2	
Total ...		24,550	2	2	6,384	10	0	354	8	0	6,738	18	0
Grand total		26,942	0	17	6,681	6	5	354	8	0	7,035	14	5

Unsurveyed Land.

Subdivision.	Block.	Area.	Loading for Roads.		
		Acres.	£	s.	d.
Eastern ...	Nil	Nil			
	Waimarino (part) ...	45,760			
	Taurewa No. 1 ...	17,600			
	South Kaitieke ...	20,189			
	Horopito (Township Reserve) ...	538			
Western ...	Awarua 4A 3B ...	1,911			
	" 4A No. 2 ...	903			
	" 4C No. 1 ...	864			
	" 1DA ...	22,807			
	" 1B ...	59,300			
	" 4C No. 2 ...	473	141	18	0
		170,345	141	18	0

The CHIEF SURVEYOR, Wellington District, to the SURVEYOR-GENERAL.

SIR,—

District Survey Office, Wellington, 21st April, 1881.

In compliance with your instructions of the 19th instant, following upon Circular No. 82 of the 7th January last, I have the honour to submit for your consideration descriptions of several proposed reserves for State forests in this provincial district.

Though your circular does not appear to contemplate more than the protection of springs and the sources of rivers and streams, I have ventured to assume that the primary objects to be kept in view are:—

- (1.) The preservation of forest and scrub upon all mountains, high hills, and their steep faces, to insure the following advantages:—
 - (a.) The sources of streams would be sheltered and the existing water-supply maintained.
 - (b.) The surface of the country would be saved from degradation, and the alluvial valley lands protected from the accumulation of detritus.
 - (c.) The rapid descent of storm-waters would be avoided, and consequent sudden and high floods more disastrous than those now experienced.
 - (d.) The "climatic equilibrium" would be maintained.
- (2.) The reservation of forest, &c., along the courses of streams in flat valleys and plains in localities where the banks would be subject to encroachment and destruction in times of flood.
- (3.) The establishment of State forests which would comprise timber trees of special value for construction and general purposes, as well as to keep up a sufficient supply of fuel.
- (4.) The reservation on low sandy coasts of tracts where protection planting may be necessary to guard against shifting sands.

All my present recommendations have mainly in view the objects specified under heading (1); in a less degree some of the purposes required under heading (3) will be accomplished. In consequence of the purchase by private individuals of most of the accessible forest classed under the latter heading (3) reservations will require to be effected for those purposes at a future time, as the surveys progress and actual inspection reveals where valuable timber trees exist. The same remarks apply to the conservation of bush under headings (2) and (4).

You will observe that the proposed reserve on the Rimutaka Ranges will guard, as far as is now practicable, the important settled district in the Hutt Valley from higher floods than are now experienced. The country around Featherston will likewise benefit in the future. The Wainui-Paikakariki and the Otorongo reservations are recommended for climatic and landscape considerations and effect. Within a few years I have little doubt that the aspect of the Wellington country districts will present an almost complete absence of forest scenery. This consideration alone furnishes ample argument for forest-reservation.

Most of the purposes indicated under (1) will be insured by the proposed reserve on the Arawaru-Fitzherbert Ranges. When the plans of the Tararua Block have been completed the mountain country at the heads of the Mangahara, Makakahi, Ruamahanga, Waipoua, Waingawa, and Waiohine Rivers should be reserved to prevent the probable future destruction of large tracts in the Wairarapa, as well as to save some of the towns from actual danger of devastating inundations. Reservations in the following localities should be made from time to time as the surveys furnish the requisite information: Forty-mile Bush, Puketoi, East Coast, Otaki, Tokomaru, Pohangina-Ruahine, and other places.

It may be considered that the areas are large, but I doubt whether comparatively small forests will withstand destruction (wilful or accidental), or even the effects of natural decay. Additions can hereafter be made as necessity requires. And it would be well, also, if provision were made for the withdrawal of portions of areas from the operations of "The New Zealand Forests Act, 1874."

The bush in this country affords shelter to wild cattle, pigs, dogs, and to some extent to rabbits, and sheep affected by scab; therefore the settlers naturally use all their endeavours to destroy all forest and scrub contiguous to their farms and runs. Active supervision will be necessary, particularly over birch forests, to prevent wasteful and extensive conflagrations, and at the same time to protect the settlers from the ravages of wild animals. I beg to suggest that the most feasible and economical way to secure these objects would be to appoint the district and assistant surveyors—and some of the chainmen, perhaps—forest rangers. There are no men in this colony better qualified to undertake the simple preliminary steps which appear necessary.

I have, &c.,

J. W. A. MARCHANT,
Chief Surveyor.

The Surveyor-General, Wellington.

SCHEDULE of DESCRIPTIONS of Proposed FOREST RESERVES, Provincial District of Wellington.

Districts.	Area. Acres.
Rimutaka, Wairarapa, Onoke, Pencarrow, Belmont	31,400
Waiohine, Eritonga, Akatarawa	36,400
Gorge, Kairanga, Mangahao, Arawaru	20,000
Pakuratahi, Akatarawa... ..	13,800
Total	101,600

Descriptions of Boundaries of Proposed Forest Reserves.

All that piece or parcel of land in the Provincial District of Wellington, containing about 36,400 acres, in the Waiohine, Eritonga, and Akatarawa Survey Districts. Bounded towards the north by a line about 65000 links; towards the east by the summit of the watershed between the Tauherenikau and Waiohine Rivers and by a line about 60500 links; towards the south by lines about 90500 links; and towards the west by lines about 53000 links: as the same is delineated on the plan deposited in the office of the Chief Surveyor, Wellington. Excepting and always reserving any Native reserves or other allotted sections of land falling within the said area.

All that piece or parcel of land in the Provincial District of Wellington, containing about 13,800 acres, in the Pakuratahi and Akatarawa Survey Districts. Bounded towards the north-east by a line about 16500 links; towards the east by a line about 48600 links; towards the south by a line about 26400 links; and towards the west by lines, by a curve of 80 chains radius from Wainui Trig. Station to the summit of the main range, by a line, and by the Maungatukutuku Creek, about 98000 links: as the same is delineated on the plan deposited in the office of the Chief Surveyor, Wellington. Excepting and always reserving any Native reserves or other allotted sections of land falling within the said area.

All that piece or parcel of land in the Provincial District of Wellington, containing about 31,400 acres, in the Rimutaka, Wairarapa, Onoke, Pencarrow, and Belmont Survey Districts. Bounded towards the north by a railway reserve and by a line about 3200 links; towards the east by lines parallel with the western boundaries of sections numbered 85, 86, 87, 74, 73, 72, 71, 60, 59, 58, 51, 40, 36, 32, and 21, in the Western Lake Block, about 136400 links; towards the south by a line about 21900 links; and towards the west by a line, by the proposed Wellington Waterworks Reserve, and by the summit of the western watershed of the Pakuratahi River, about 148600 links: as the same is delineated on the plan deposited in the office of the Chief Surveyor, Wellington. Excepting and always reserving any Native reserves or other allotted sections of land falling within the said area.

All that piece or parcel of land in the Provincial District of Wellington, containing about 20,000 acres, in the Gorge, Kairanga, Mangahao, and Arawaru Survey Districts. Bounded towards the north by the Manawatu Gorge Road, about 16000 links; towards the east by lines parallel to the summit of the Tararua Range, about 128000 links; towards the south by a line running through Arawaru Trig. Station, about 16000 links; towards the west by lines parallel with the summit of the Tararua Range, about 16000 links: as the same is delineated on the plan deposited in the office of the Chief Surveyor, Wellington. Excepting and always reserving any Native reserves or other allotted sections of land falling within the said area.

The CHIEF SURVEYOR, Wellington District, to the SURVEYOR-GENERAL.

District Survey Office, Wellington, 11th September, 1884.

Timber Regulations.

In compliance with the instructions contained in the circular of the 1st April, 1884, I have inquired of the staff surveyors and have to report that the settlement surveys are not sufficiently advanced to enable me to define any particular reserves sufficiently for description or upon the plans.

The Crown lands in the Wanganui, Waitotara, and Rangitikei districts do not comprise any suitable timber trees in patches worth reserving.

In the Manawatu district Mr. Dundas reports that there are about 100 acres of totara bush up the Pohangina River, south of E Trig. Station, besides other small patches on the same river, which are being washed away by floods.

The principal trees upon Otamakapua, Waitapu, and the country north of the Wanganui Harbour Board Endowment Block are nearly all rimu and rata, except one known patch of about 30 acres of totara on the Mangawharariki Stream, three quarters of a mile west of Trig. G. It should be noted that these blocks contain much hinau interspersed with the other forest trees, and it is in my opinion one of the best timber trees in the colony. The localities are at present very remote.

In the Wellington District there remain no Crown lands which comprise any valuable areas of timber trees.

In the northern Wairarapa patches of totara are to be found in various localities: on the upper Makakahi, east of Kaiparoro Δ , and all along the Mangatainoko upwards from Tutaekara. There are groups of totara upon the Mangahao River, especially at Raikohoua, and Kakariki, and west of Hawera. There are also considerable patches of totara eastward of the Tiraumea, in the Makuri and other valleys, as well as in the lower Mangatainoka Block, and on the banks of the Tiraumea and Manawatu. Excepting the totara bush in the Kauahiti, I am not aware of any other localities where good timber grows in any large quantities upon Crown lands.

I have seen most of the forest in this district, and can indorse many of the surveyor's statements as to the character of the timber.

You may depend that your attention shall be drawn to any blocks of bush worth preserving as the country becomes opened up.

The Surveyor-General, Wellington.

J. W. A. MARCHANT,
Chief Surveyor.

REPORT BY THE COMMISSIONER OF CROWN LANDS, BLENHEIM, ON THE VARIOUS TIMBERS IN THE RAI VALLEY.

Department of Lands and Survey,

District Office, Blenheim, 25th June, 1897.

In compliance with your request, conveyed by letter dated the 26th March, 1897, the correspondence referred to *re* Messrs. Brownlee and Co.'s application for a concession of tithes of timber in the Rai Valley was placed before the Board for its consideration, and, as the matter opens up the whole question of the Rai Valley Tramway and future settlement of the land, it was deemed of such importance that the members decided they would visit the locality and make a general inspection of the land and timber themselves, so as to form a clear idea regarding the concession asked for, before making any recommendation to the Minister. This has now been done, and the Board is quite satisfied there is a very large area of land covered with an extensive and valuable forest belonging to the Crown in that vicinity.

The Board has also gone carefully and exhaustively through the previous requests on this important subject, as embodied in Parliamentary Paper I.-5B, presented to the House on the 17th October, 1894, and, taking a summary of them, the Board finds,—That the Crown Lands Ranger, Mr. Joshua Rutland, in his extensive report in 1886, estimates the land suitable for settlement, including flats, terraces, and hills, at 30,000 acres, which are all covered with dense forest, consisting of rimu, white-pine, totara, and matai, which stands on some portions of the land very thickly, and is estimated to contain in some cases the enormous quantity of 50,000 superficial feet of timber to the acre. That Messrs. C. H. Mills and A. P. Seymour, in their report made in 1892, confirm the statement made by the Ranger with regard to the extent of land suitable for settlement, but make their estimate of the timber suitable for milling purposes considerably greater, and show at the same time there is a large extent of other Crown lands in the Wakamarina and Upper Pelorus Valleys heavily timbered which will eventually be utilised and serve to feed the tramway after the timber in the Rai Valley has all been cut down. That in 1893 Mr. Charles Turner, an old settler and experienced bushman residing in the Rai Valley, confirmed their statement as to the extent and value of the timber in the valleys by measuring the standing trees on part of a section, and proving there were considerably over 2,000,000 superficial feet on the 200 acres. That in 1894 Mr. Sidney Weetman, Chief Surveyor here, made an exhaustive report, confirming both the others, in regard to the valuable asset in land and timber, although differing somewhat as to their extent; but from actual measurement over one section containing 118 acres he found there were 2,245,395 superficial feet, or nearly an average of 20,000 ft. of sawmilling timber to the acre, thus more than fully substantiating Mr. Turner's statement. That in the report from Mr. Wilson, Resident Engineer, Wellington, in 1895, on the Pelorus Tramway, he says, "Joining as it does the deep water with the valuable State forests in the Rai, Ronga, and Opouri Valleys, the tramway in question is well placed for developing a timber trade. It is the key to the position, as the timber in the State Forest Reserve is locked up, and unless it is decided to lift the reserve and abandon the timber to its fate, allowing it to be destroyed, the land also is locked up and no settlement is possible. The latter course is evidently wrong, and should, I think, be avoided at all hazards. The forest is far too valuable, at the lowest computation, to make this the right thing to do. It would pay well to open up. It is quite evident the opening-up of the timber country would be a financially sound enterprise, and that a tramway or light railway would by means of its own earnings, together with the timber royalties which would accrue through its construction, earn enough to pay good interest on the expenditure, as well as to enable a sinking fund to be provided equal to the repayment of the full cost of the work in twenty years. In addition to this there is the increased value of the land, the sales of which are estimated to produce when cleared £14,150."

Then, there is the valuable evidence given by the Hon. John McKenzie before the Parliamentary Committee in 1894, who says (extract 1), "I have visited the district myself, and am satisfied the statements with regard to the timber are true, and I have no hesitation in saying that it should be worked first entirely for its timber; only there is a difficulty in the way—that is, how to get the

timber to a market. This tramway belongs to private individuals, and to get to our country you would have to go over this line, and all the timber would have to be taken by this tramway to the seaport. My own opinion is that it would be impossible to utilise this forest reserve without a tramway. If the tramway belonged to the Crown there would be no difficulty in disposing of areas of timbered land for sawmilling purposes in these valleys, and a large revenue would be got from it, and then we should have cleared the land for settlement afterwards." There is also the valuable evidence given by the Hon. A. J. Cadman at the same time, who said, "I have been over the district twice, and I look at the matter in this way: If the property were my own what should I do with it? There is no doubt that, outside the question of detail estimate, there is a large quantity of timber there, and, as has been pointed out, the trouble is to get access to it and get it away. My idea is that it would be better to make some arrangement for taking the tramway over, and let the haulage of the timber pay just the bare cost of working, and let the royalty for the timber pay for the whole thing, which it will do three or four times over." Question by the Chairman: "You believe the royalty on timber would more than pay for the construction of a railway-line right up to the timber?" "Yes, three or four times over, at the very lowest calculation, without going into details. . . . The timber that is in the Rai Valley is only a small portion of the whole amount. There is a very large quantity of timber in the Wakamarina. I think there is at least one hundred thousand pounds' worth of royalties in that place, and in saying this I feel that I am within the mark."

All this valuable testimony clearly proves that the Crown has a most valuable forest in the Pelorus district. And the actual cost of the tramway must not be confined to an estimate of the value of the land and timber in the Rai and its tributaries, but must be spread over the adjoining timber lands, for it would ultimately produce a large and continuous revenue in haulage and royalties on timber to come out of the Wakamarina and Pelorus Valleys. But, apart from these future accessions to the revenue, taking Mr. Weetman's estimate of the surveyed and unsurveyed land in the Rai Valley—say, 20,000 acres—which if put in the market now would only mean £20,000, but if the tramway were purchased by the Government and extended at, say, a cost of £30,000 would then stand as worth £50,000—and we take a mean estimate of the various computations in the reports—there can be no doubt the land would average, say, 15,000 superficial feet of timber to the acre, but to be on the safe side say an average of 10,000 superficial feet per acre, which means in the aggregate of 20,000 acres 200,000,000 superficial feet at 6d. per 100 . . . £50,000
Then, value of land with convenience of tram-line and heavy logs removed, say, 20,000 acres at £3 per acre 60,000

£110,000

Therefore, if the Pelorus Tramway were purchased and extended for the amount mentioned, after deducting the £30,000 for the extension the Government would then have a property worth £80,000, as against its present value of only £20,000; and these figures are taken at the lowest computation. Now, if the money had to be borrowed it would mean £30,000 at 3 per cent., or £900 per annum for interest, which amount could be charged with expenses for working the line in haulage rates, while the tithes for one mill alone like Messrs. Brownlee and Co.'s, who propose to cut 20,000 superficial feet daily, or an average of, say, 4,000,000 feet annually, would provide a sum of £1,000 per annum from that source, which would in less than twenty years create a working fund that would repay the full amount borrowed. If no other sawmills were erected it would take the plant referred to over fifty years to cut all the timber from the Rai and its tributaries alone. Therefore the Government could let other sawmill-sites if they deemed it advisable.

Now, before dealing with Messrs. Brownlee and Co.'s application we must forcibly point out that this is the only valuable forest belonging to the Crown from Nelson all down the east coast to Southland, on this Island, and, as the Board has never seen its equal in the colony, they emphatically indorse the opinion of the recent Timber Conference in urging the necessity for working all our forest land to the best advantage in the interest of sawmillers and settlement, therefore we submit the following recommendations:—

1. That all the tithes or royalties now charged for timber taken off Crown lands should be raised throughout the colony, instead of sacrificing such a valuable asset, as that would be the first step to encourage every owner to conserve whatever valuable timber he may have, instead of recklessly destroying it.

2. That the Government should take immediate steps to purchase the Pelorus Tramway from the present owners, and supply the timber from the Crown lands at certain fixed rates, including haulage and royalties, or let the timber be removed from given areas of land under reasonable restrictions, the tithes to be fixed hereafter, and the sawmillers paying haulage.

3. That if the Government decide not to purchase the Pelorus Tramway at once every reasonable facility by way of reduction in tithes over stated areas of sawmilling-timber should be given to such an enterprising firm as Messrs. Brownlee and Co. immediately, so as to encourage them to extend their tramway up the Rai Valley, and thus continue the excellent work of finding steady employment for the greater number of workmen who have signed the petition.

The whole question is of such vital importance to the Pelorus district and Marlborough that the Board would respectfully request that Government would take this urgent matter into their serious consideration without delay, so that, whatever is decided, this great industry may not be crushed and so many breadwinners thrown out of employment.

The Surveyor-General, Wellington.

C. W. ADAMS,
Commissioner of Crown Lands.

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