

1876.

NEW ZEALAND.

REPORT BY INSPECTOR OF SURVEYS.

Presented to both Houses of the General Assembly by Command of His Excellency.

Mr. T. HEALE to the Hon. the NATIVE MINISTER.

SIR,—

Inspector of Surveys' Office, Auckland, 23rd June, 1876.

I have the honor to forward, at an earlier date than usual, my report on the work of this department, with returns for the year, as nearly as they can be made up before the actual expiry of the period.

The total area of land surveyed in blocks for adjudication before the Native Lands Court, for Native reserves, or subdivided into sections, amounts to 1,053,298 acres, in addition to over 690,000 of which the survey is in an advanced condition, but not yet completed; and the triangulation has been completed over 2,000,000 of acres, and is in progress over about 600,000 acres more. These two last areas, including the greater portion of the former, surveyed lands. The distribution and nature of this work are as follow:—

1. *District North of Auckland.*

The surveys here consist almost entirely of blocks purchased on behalf of the Government, which are in almost every case interstitial pieces between former purchases from the Natives, some of them made many years ago; and the survey of them has consequently involved the recovery of old boundaries, originally very imperfectly surveyed, without reference to any triangulated or otherwise fixed points, and of which all marks on the ground had in many cases long since disappeared.

It would have been impossible to have executed the work within the time, or at anything like the very moderate sum it has cost, but for the large triangulation extended over the greater part of this district by this department in former years: by that happy provision many perfect means have existed of controlling the work, and by it all the larger old surveys in the North have been closed, and have now for the first time been brought into accordance. In doing so many errors of position have been rectified, involving in one case the alteration of a Crown grant and a considerable reduction of the area conveyed by it. A glance at the map will show that very nearly the whole of the area has now been surveyed, and that a small portion only remains under Native title.

2. *In the Valley of the Thames and Piako.*

A considerable area appears in the returns as only now completed, but a large part of this has been long in hand. The surveyors have been employed throughout under the Land Purchase Agent, and their work has been carried on under very constant Native interruptions; it has consequently been very expensive, and is far from accurate or complete. I am satisfied that much of the opposition to surveys has been suggested by parties not Natives, and that it will be readily overcome whenever it is quite understood that no surveys will be accepted but those made by the officers of this department after triangulation; and, looking at the increasing value of the land, and the disproportionate cost and unconnected state of the work of the private surveyors, I cannot doubt that an effort ought to be made in the ensuing summer to carry out such a work, and to bring this district under the system of regular official survey which now prevails over most part of the island.

3. *The Arawa Country, Bay of Plenty and Taupo.*

The area surveyed for the purpose of purchase is considerable, but the work has not been heavy, the country being open and completely triangulated, the block surveys also including former surveys in most cases. A large area of new surveys has been commenced, but they are now stopped.

4. *Poverty Bay.*

The surveys here have been of enormous extent, and for the most part in very rough and inaccessible country. Many large surveys had been commenced by contract surveyors engaged by the Land Purchase Agents, before they were placed under my charge. It became therefore my first object to carry a triangulation over the district, in order to control and co-ordinate these surveys; and in this I

have been most ably seconded by Mr. W. Horace Baker, an old and trained officer of this department, who under your sanction was appointed District Surveyor.

Many surveys had been exceedingly negligently performed, and Mr. Baker encountered at first considerable opposition; but this has been completely subdued, and the surveys are now being carried on with a rapidity, accuracy, and economy not surpassed in any part of New Zealand.

The work Mr. Baker has had to perform, of simultaneously carrying on the triangulation and directing and controlling the block surveys under seventeen field surveyors, has been inordinately heavy; but, as the pressure of the work is likely to be temporary only, it was undesirable to increase either the field or the office staff. So much of the district is now completed that the survey work will now, I trust, lose the character of feverish haste by which it has been marked during the past year.

5. *Wairoa, North Shore of Hawke's Bay.*

A number of surveys of very various kinds were urgently required in this district; and as a triangulation over it would connect those of Hawke's Bay and Poverty Bay, I found it necessary to send my chief assistant, Mr. S. Percy Smith, to superintend the whole. The work is now nearly completed, and in the most satisfactory manner, and the closure of the triangulations has served to verify both. It has, as might have been expected, effected a considerable reform in the geography of Hawke's Bay, the north shore of which had previously been displaced on the provincial map by about a mile and a half to the southward.

The surveys now made embrace the Nuhaka Block, purchased some years ago, and several large blocks under recent negotiation, extending back to Waikaremoana.

A large number of Native reserves had also to be laid off, and a block formerly appropriated to military settlers had to be subdivided.

6. *Province of Wellington.*

This work has been only indirectly under my supervision, my deputy at Wellington, Mr. Marchant, having immediately superintended it. It has consisted of extensive surveys of various kinds in the confiscated lands at Patea, conducted by Mr. Williams, District Surveyor; of large blocks of land for investigation before the Native Lands Court, between Whanganui and Taupo, carried on under Mr. Munro; and in the subdivision into small sections of a block of 25,000 acres at Mangaone, to the north of Masterton and Eketahuna. But the most important work has been carrying a triangulation over the Otaki district, in order to enable the numerous surveys there, which have been adjudicated on during the last few years by the Native Lands Court, to be properly collocated and mapped.

The imperative necessity of this work has been constantly urged by me, ever since the formation of this department, and has been repeatedly dwelt upon in former reports.

It was thought desirable that all the necessary survey work in the Province of Wellington should be done through the Provincial Survey Department, and the Provincial Surveyor was appointed Deputy Inspector of Surveys with that object. From the first I insisted on the absolute necessity of invariably collating every Native land claim on a district map before issuing certificate of title, and to enable this to be done a considerable sum was for several years paid to the provincial department; but it was at length found necessary to take it into our own hands, and the work has at last been fairly commenced; but a great confusion has arisen from its delay, and, now that the surveys come for the first time to be collated together, they prove to be in many cases discordant, and considerable time and labour will be required to eliminate all the discrepancies.

Several large blocks of land in the Province of Taranaki have been under negotiation for purchase, and maps of them were produced before the Native Lands Court, and the claims were adjudicated on. These maps were not made by a surveyor under the control of this department, and on their reaching this office two of them proved to be mere sketches, purporting to embrace upwards of 70,000 acres of land, but the boundaries of which had not been in any way marked on the ground, or even visited or approached within many miles, and which consequently could not be called surveys. I have not therefore included these blocks in the area of land surveyed. A surveyor has, I believe, been retained by the Land Purchase Agent through the year, but I cannot learn that he has surveyed any land: at all events, no map or field-book representing any work done by him in the year has reached this office, or that of my very efficient Deputy at New Plymouth, Mr. Humphries.

It is unnecessary for me to enter again into any detailed description of the course of triangulation pursued by me, as it has been fully explained in several publications, and as it has been admitted by the most competent authority to come fully up to the degree of accuracy claimed for it—namely, a maximum error of 1 foot in a mile. I need only remark that it now covers so large a portion of the island, and that it has proved so efficient and so economical, that the desirability and even the necessity of extending it as fast as possible over the comparatively small accessible parts which remain untouched by it, or by the equally trustworthy Wellington triangulations, cannot be doubted. The only point upon which, as far as I am aware, its conduct or results can be improved, is in the more systematic record of the connection of all detail surveys with it, and in the publication of the resulting map.

I have long been anxious to carry out these improvements; but as I was informed in October last, and several times since, that my department would be immediately removed to Wellington, it would have been manifestly improper to commence any expansion of the office work, until after that change was effected. Looking to this early removal, I have laboured to carry on the enormously increased business of the department without any alteration in the office staff or any new organization of the work, thus an expenditure during the year of upwards of £15,000 has been made by means of Imprest without having any accountant in the office; and every item in the numerous vouchers for that sum has been checked, and the great correspondence which necessarily arises out of such accounts has been conducted, by myself and the draftsman of this office, in the intervals of the innumerable questions of survey, of computations, and of checking maps and field-books, which necessarily arise out of the block survey of a million of acres and the trigonometrical survey of two millions, and which form the proper business of a Survey Department.

All these financial and epistolary matters have been conducted without any mistake or any delay or difficulty whatever, which could attract the attention of the Government or of the public—a result which I may fairly assert could not have been achieved without the most unremitting attention on the part of my office assistants, and especially of Mr. J. E. Allen, the chief draftsman, on whom the care of and responsibility for the accounts and correspondence has almost wholly devolved.

I accompany this report with a large map compiled of the several sheets which were photo-lithographed some time since at Wellington from tracings of the trigonometrical survey maps. On this, I have shown in distinctive tints the lands which had been surveyed or settled prior to the present financial year, and those surveyed during the year for purchase or otherwise as far as official information has reached me.

The Hon. the Native Minister.

I have, &c.,
THEO. HEALE.

RETURN showing NUMBER and GROSS AREA of MAPS of NATIVE LANDS COURT CLAIMS, &c., received at the Inspector of Surveys' Department from 1st July, 1875, to 30th June, 1876.

	No.	Area.		
		A.	R.	P.
<i>Province of Auckland—</i>				
Prior to June, 1875	2,251	4,221,162	0	0
In year ending 30th June, 1876	134	321,022	0	0
	2,385	4,542,184	0	0
<i>Province of Hawke's Bay—</i>				
Prior to June, 1875	246	1,364,625	0	0
In year ending 30th June, 1876	Nil.	Nil.		
	246	1,364,625	0	0
<i>Province of Wellington—</i>				
Prior to June, 1875	462	1,333,024	0	0
In year ending 30th June, 1876	55	154,934	0	0
	517	1,487,958	0	0
<i>Province of Taranaki—</i>				
Prior to June, 1875	Nil.	Nil.		
In year ending 30th June, 1876	3	86,430	0	0
	3	86,430	0	0
<i>Southern District (Middle Island)—</i>				
Prior to June, 1875	57	21,769	0	0
In year ending 30th June, 1876	Nil.	Nil.		
	57	21,769	0	0
<i>Public Works Department—</i>				
Prior to June, 1875	68			
In year ending 30th June, 1876	8			
	76			
<i>Miscellaneous—</i>				
In year ending 30th June, 1876	16			

J. E. ALLEN,
Chief Draftsman.

Inspector of Surveys' Office, Auckland, 22nd June, 1876.

GRAND TOTALS.

	No.	Area.		
		A.	R.	P.
Province of Auckland	2,385	4,542,184	0	0
Province of Hawke's Bay	246	1,364,625	0	0
Province of Wellington	517	1,487,958	0	0
Province of Taranaki	3	86,430	0	0
Southern District (Middle Island)	57	21,769	0	0
Public Works Department	76			
Miscellaneous	16			
	3,300	7,502,966	0	0

J. E. ALLEN,
Chief Draftsman.

Inspector of Surveys' Office, Auckland, 22nd June, 1876.

SUMMARY of SURVEYS executed by the Inspector of Surveys' Department during the Year from 1st July, 1875, to 30th June, 1876.

					Completed.			In Progress.		
					A.	R.	P.	A.	R.	P.
<i>Triangulation—</i>										
Province of Auckland	...	...	...	...	1,980,000	0	0	100,000	0	0
Province of Wellington	...	...	...	...	30,000	0	0	526,000	0	0
Grand Totals	...	...	...	...	2,010,000	0	0	626,000	0	0
<i>Block and Other Surveys—</i>										
Province of Auckland	...	...	...	...	958,385	0	0	681,383	0	0
Province of Taranaki (71,360 acres passed Native Lands Court on sketch maps: <i>vide</i> remarks in Report).	...	...	...	...		
Province of Wellington	...	...	...	...	94,913	0	0	10,000	0	0
Grand Totals	...	...	...	...	1,053,298	0	0	691,383	0	0

THEO. HEALE,
Inspector of Surveys.

Inspector of Surveys' Office, Auckland, 22nd June, 1876.

RETURN of TRIANGULATION and SURVEYS executed by the Inspector of Surveys' Department during the Year from 1st July, 1875, to 30th June, 1876.

PROVINCE OF AUCKLAND.

					Completed.			In Progress.		
					A.	R.	P.	A.	R.	P.
<i>Triangulation—</i>										
North part Whangarei	...	...	...	...	435,000	0	0	...		
Thames District, Ohinemuri	...	...	...	...	125,000	0	0	...		
Poverty Bay and } Wairoa, H. B. }	...	...	...	...	620,000	0	0	100,000	0	0
Totals	...	...	...	...	1,980,000	0	0	100,000	0	0
<i>Surveys—</i>										
North Part { Land Purchase surveys	...	...	...	...	236,566	0	0	18,000	0	0
North Part { Surveys under "The Native Lands Act, 1873"	...	...	...	...	29,224	0	0	800	0	0
Thames and Waikato Districts—Land Purchase surveys	...	...	...	...	52,919	0	0	...		
Thames and Waikato Districts—Surveys under "The Native Lands Act, 1873"	...	...	...	...	21,861	0	0	...		
Bay of Plenty—Land Purchase surveys	...	...	...	...	62,787	0	0	261,000	0	0
Poverty Bay and Wairoa, H. B. {	Land Purchase surveys	...	...	...	406,745	0	0	237,000	0	0
	Surveys under "The Native Lands Act, 1873"	...	...	...	78,405	0	0	8,583	0	0
	Native Reserves	...	...	...	69,878	0	0	...		
	Subdivisions for military settlers and sale	...	...	...	...			10,000	0	0
	Totals	...	...	...	958,385	0	0	681,383	0	0

PROVINCE OF TARANAKI.

	A.	R.	P.
Passed Native Lands Court, on sketch maps	71,360	0	0

PROVINCE OF WELLINGTON.

					Completed.			In Progress.		
					A.	R.	P.	A.	R.	P.
<i>Triangulation—</i>										
Otaki	...	...	...	...	30,000	0	0	...		
Wellington and West Coast	...	...	...	...	...			500,000	0	0
Totals	...	...	...	...	30,000	0	0	500,000	0	0
<i>Surveys—</i>										
Land Purchase surveys	...	...	...	...	69,913	0	0	10,000	0	0
Surveys under "The Native Lands Act, 1873," section surveys, Native reserves, &c.	25,000	0	0	...		
Totals	94,913	0	0	10,000	0	0

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