

(No. 66.)



1890.

---

PARLIAMENT OF TASMANIA.

---

SURVEY DEPARTMENT:

ANNUAL REPORT FOR 1889.

---

Presented to both Houses of Parliament by His Excellency's Command.



## SURVEY DEPARTMENT.

### ANNUAL REPORT, 1889.

Hobart, 1st July, 1890.

SIR,

I HAVE the honor to submit to you a Report upon the work of the Survey Department for the year ending 30th June, 1890.

During the year just closed the efforts of the staff have been taxed to the fullest extent to dispose of the routine work of the office, and no opportunity has been afforded me to make provision for undertaking increased duties which might be introduced with so much advantage to this Department. In view of the desire of the Government to keep the departmental estimates down as much as possible, and being aware of the difficulty of increasing the staff without unduly reducing the prospects of promotion to deserving officers in the Department, I have not applied for the assistance that would be necessary in order to extend our operations in many desirable directions.

#### LANDS.

*Wellington.*—In the premier County of Wellington, which embraces the extreme north-western portion of the Colony, the good agricultural land available for selection is estimated by Mr. Windsor, the District Surveyor, at over 8000 acres. Mr. Windsor has made no special explorations beyond where his survey duties have taken him. Where large areas of good land are mentioned in some parishes, no estimate of the extent is given. The large areas mentioned are situated in various parishes throughout the District. The greatest progress in selection has taken place in the Parishes of Medwin, Calder, and Yolla, in the former of which the nucleus of a settlement is being formed that promises to be of considerable importance to the district in the near future. The prosperity in this locality is attributed to the rapidity with which settlement follows the construction of roads through our rich agricultural lands. With these areas of good land available for selection it is, perhaps, scarcely necessary that any explorations should be undertaken in this county during next summer. The attractions of this county have induced several practical farmers from the other colonies to select and settle upon the land, with capital to clear and develop it. Mr. Windsor's report, to which I have only been able to refer briefly, contains some valuable information respecting the progress of his district.

*Devon.*—The western portion of the County of Devon, extending from the Emu to the Rubicon River, is under Mr. R. Hall's supervision, whose annual report refers to the continued progress that has taken place in regard to selection and advance in settlement throughout the district. Good progress is being made as far back as 24 miles from the coast. In a later report Mr. Hall gives some satisfactory information respecting the discovery of a large tract of good land to the south west of, and within easy access from, Nietta: estimated extent from 10,000 to 15,000 acres.

*Devon and Westmorland.*—The eastern portion of the County of Devon, lying between the Rubicon River and the Tamar and the north-eastern portion of Westmorland, form the district over which Mr. H. P. Sorell (recently resigned) presided as District Surveyor for many years. Settlement progresses slowly in this district, which is one of the oldest settled districts in the Colony.

*Dorset.*—The western portion of the County of Dorset, extending from the River Tamar to the Great Forester River, is under the care of Mr. C. W. Lord. There has been a considerable falling-off in selection in this district during the year, which circumstance has been largely due to the extent of land withdrawn from selection. With the large areas of good land available, the falling-off in selection can only be looked upon as of a temporary nature.

The eastern portion of this county, lying between the Great Forester River on the west, the Bay of Fires on the East Coast, and Branxholm on the south, constitutes approximately the district allotted to

Mr. E. G. Walpole. This and the four previous districts embrace the north portion of Tasmania bordering on Bass' Straits. Selection has been almost at a standstill in this district for some years, consequent on so much of the good agricultural lands having been withdrawn from selection to avoid unduly hampering the mining industry. The major portion of the extensive stanniferous areas of the north-eastern districts are included in this portion of the county.

*Cornwall.*—There is no great extent of good land available in this county, which extends from Launceston, at the head of the Tamar, to Falmouth, on the east coast. The greatest advance in selection has taken place, and is still progressing, near the head of the George's River, about 12 miles from George's Bay. In respect to this settlement, Mr. G. C. Smith's annual report draws attention to the important fact that the advance in improvements on the land selected is stimulating the district against the temporary decline occasioned by the falling off in the output of tin ore from the alluvial mines. This is very satisfactory information, as actual settlement on such land means permanent and increasing prosperity to the district and to the colony. From my intimate knowledge of the country between the George's and Ringarooma Rivers, I am convinced that there are thousands of acres of land that will be converted into farms after the alluvial tin deposits have been worked out.

*Glamorgan, Pembroke, Monmouth, and Somerset.*—These counties are largely composed of pastoral lands. They include the district of Mr. W. M. Hardy, and embrace the large area of the colony between Lake Sorell and the East Coast, from the Derwent to Seymour, to the north of Swansea. The good land available in these counties is limited; the largest area suitable for selection is located between Orford and Bream Creek, on the east coast, comprising about 2000 acres. Mr. Hardy mentions this land in his report for last year. The settlements of Bream Creek, Woodsdale, Tunnack, and Jerusalem are being gradually extended wherever good land can be secured, and at the present time are supporting a very large population for the extent of country selected. Mr. Hardy's report is principally devoted to matter connected with the Flinders' group of islands. One subject referred to by Mr. Hardy—viz., the destruction of, and the necessity for protecting, the mutton-birds that frequent these islands—is deserving of the special attention of Parliament. It will be remembered that I submitted a report upon the subject on my return from these islands in March, 1889. It is satisfactory to find that the lands selected on Flinders' Island are being settled upon and improved.

*Cumberland, portion of Monmouth, and the north-western portion of Buckingham,* form the survey district of Mr. Frodsham, and consist principally of open pastoral lands. The north-western portion of Buckingham, included in this district, contains a large area of heavily-scrubbed land recently selected in the vicinity of the Russell's Falls River, and also a large block of similar country in the valley of the Florentine River.

*Buckingham (South).*—Nearly the whole of this county is mountainous and densely scrubbed. Selection has advanced slowly, and in small lots. Mr. Combes reports that there is still plenty of good land in the Parishes of Throckmorton, Ranelagh, and Coningham that will soon be selected, now that roads are being made in the different localities, which lie principally along the valley of the Huon River. The best land is located between the Russell and Weld Rivers.

*Kent.*—This county is one of considerable importance, and extends from the Huon River on the north to the South Pacific Ocean on the south, and from D'Entrecasteaux Channel on the east to Port Davey on the west. General and steady progress has been experienced throughout the eastern portion of the county. Mr. Innes, the District Surveyor, reports a considerable area of comparatively open country between the Southport Narrows and Recherche Bay which is suitable for agricultural purposes, and within three miles of a shipping-place, to which a good road could be easily laid out. Mr. Innes considers this land admirably adapted to fruit-growing, on which industry this district very largely depends.

*Arthur and Montgomery.*—These counties, lying to the north of Port Davey, are principally rough and unsuited to agriculture as far as known.

*Franklin.*—This county extends from the head of the Derwent to Macquarie Harbour, and contains some good land along the Derwent and elsewhere that will be eagerly sought after in the near future. It is situate in a direct line between the Ouse and the West Coast, within miles of the former.

*Montagu and Russell* are principally mining counties, and include the survey district of Mr. David Jones. There are large areas of land in the County of Montagu suitable for selection, and being rapidly applied for at the present time under 53 Vict. No. 38 of the Waste Lands Act. All surveys effected up to the end of the year have been for the Mines Office.

*Lincoln, and the south-western portion of Westmorland,* form the survey district of Mr. Chalmers. This district is composed partly of agricultural, pastoral, and mineral lands. The returns show a considerable falling off in selection and leases for mining when compared with previous years. Of the good lands available for selection, Mr. Chalmers reports that the only portion fit for cultivating is situated in the vicinity of Gad's Hill, near the Mersey and Forth Rivers; and that this land, although somewhat remote is exceptionally good, and must prove valuable to the selector. The new road recently formed from Circular Ponds in extension of the road from Mole Creek Railway Station to the Mersey River, together with the facilities afforded by the Chudleigh Railway, will bring the intending settler within easy access of a good market.

*Tasman's Peninsula.*—Selection in this district is almost stationary. District vacant.

*RETURN showing the approximate Area of Land thrown open for Selection under the Waste Lands Acts of 1870 and 1889.*

<i>County.</i>	<i>Locality.</i>	<i>Area in Acres.</i>	<i>Act.</i>
Dorset.....	Mount Barrow	19,600	W. L. A., 1870.
Ditto .....	Upper Turner's Marsh	840	Ditto.
Ditto .....	Scottsdale	4000	Ditto.
Ditto .....	Mount Stronach	24,500	W. L. A., 1889.
Ditto .....	Branxholm	12,000	Ditto.
Ditto .....	Stieglitz	7000	W. L. A., 1870.
Wellington .....	Arthur River	60,000	Ditto.
Montagu .....	Mount Zeehan	3000	W. L. A., 1889.
Ditto .....	Henty River	60,800	Ditto.
Ditto .....	Granville Harbour	160,000	Ditto.
Cornwall.....	Woodford	4500	Ditto.
TOTAL .....	...	256,240	

#### EXPLORATION TRACKS.

Special attention was directed to this subject in my last annual Report, and I venture to think that the result of the expenditure sanctioned under this heading will be considered satisfactory.

Mr. Frodsham was instructed to organise a party, in January last, to explore and mark a track from the Russell's Falls selections into the valley of the Florentine River, thence to join "Dawson's Road" (laid out many years since from Hamilton to "the Great Bend" in the Gordon River), and in the opposite direction round the south-western side of the Rocky Mountain to the Huon River. This work has been completed with very encouraging results in respect to future settlement. Although good land has been known to exist in the Florentine Valley for many years, the area is now shown to be far in excess of that contemplated, which Mr. Frodsham estimates at 12,000 acres suitable for cultivation. His complete report and plan, showing the routes traversed, have been submitted. He reports that a practicable road can be obtained into the Florentine from the Russell's Falls country.

In January last Mr. James Moore proceeded in charge of a party to mark a track from the western terminus of the Derwent Valley Railway, towards Strahan, *via* Mount Arrowsmith. This work has been carried out principally for the advantage of the Public Works Department. Considerable trouble was therefore taken in locating the track with regard to the best gradients for a railway. The portion between the Iron Store and the Collingwood River has been graded. The route has been well marked, measured, and mile-posts erected on which the mileage from the Ouse is noted. Total distance, 58½ miles to the Collingwood River. Mr. Moore reports that he has no doubt a practicable line can be taken for the whole of the distance. There can, therefore, be little question as to the country being practicable to extend the Derwent Valley Railway to the West Coast, as the portion of country between the Iron Store and the Collingwood is probably the most formidable on the whole route. From my experience of the country I believe there would be no great difficulty in crossing the West Coast Range between Mounts Lyell and Sedgwick.

Mr. Moore reports having met with some 20,000 acres of good land along the valley of the Derwent, near its junction with the Nive River, about 20 miles from the Ouse Bridge in a direct line.

A track is being cut by the Public Works Department to open up a large extent of good land towards the head of St. Patrick's River. This land has been mentioned in previous reports, and consists of heavily-timbered scrub land of superior quality. It extends from the northern slopes of Mount Barrow to the Ringarooma River, with slight exceptions.

#### ROADS.

The principal requirement in most cases is passable roads to enable selectors to get on to the back portions of these densely scrubbed districts. Inasmuch as the cost of clearing such land is very heavy, liberal encouragement should be afforded to intending settlers in making roads. More especially is this the case where lands have been selected under the 24th Section, as Section 27 of the Waste Lands Act, 1881, provides for raising a sum equal to half the price of the purchase money for that purpose. This subject has been referred to as retarding settlement in their respective districts by Messrs. Windsor, Hall, Chalmers, Lord, Smith, Innes, and Frodsham.

The principle of surveying roads in advance of selection has been acted upon in the Russell's Falls country. Seven miles of this road have been graded and permanently marked by Mr. Frodsham, and approved of by the Public Works Department. This will obviate the necessity for vexatious and troublesome alterations in the future. The principle will be followed in providing access to the land reported upon by Mr. Hall in the Parish of Nietta, County of Devon. I would strongly recommend the same course to be adopted in respect to the Florentine Country, and in any other instances that may occur where practicable.

This system, however, cannot be applied to ordinary branch roads; such roads must continue to be surveyed piece by piece under the present land laws governing selection. When these roads come to be made, it commonly occurs that deviations are necessary in order to procure better gradients or a more direct line of road. It frequently happens, in the older surveys, that no road has been reserved from the main road to give access to the land at the back, and thus a selector finds himself cut off from communication. He then applies to the Department to provide him with a road, and here the trouble commences. Under the present tedious, troublesome, and expensive process, it probably takes months and months to dispose of one of these petty cases. As there appear to be no means of removing the cause of this trouble, it is most necessary that a more simple, inexpensive, and expeditious method of dealing with such cases should be sought out. This matter was fully represented to the Government by my predecessor, the late Mr. Sprent, and a suggestion made by him for the appointment of a Commission of a few civil servants to draw up a scheme of local government for the consideration of the Cabinet on the question. This suggestion I most strongly re-echo, as the only probable way of arriving at a satisfactory solution of the difficulty.

#### SURVEYS.

Revised Regulations for the guidance and control of surveyors were published in January last.

The number and area of Selection Surveys effected in the respective Survey Districts throughout the Colony may be approximately summarised as follows:—

County.	Area in Acres.	Number of Lots.
Wellington .....	9610	87
Devon, West.....	4750	80
Devon, East.....	905	18
Westmorland and part Devon.....	1141	23
Dorset, West .....	5217	73
Dorset, East.....	200	7
Cornwall and part Dorset .....	6000	82
Buckingham, South .....	1519	30
Buckingham, North.....	5233	41
Monmouth, Somerset, Pembroke, and Cumberland .....	814	12
Pembroke (Tasman's Peninsula and Forestier's Peninsula) .....	2281	32
Kent .....	3000	94
Flinders' Island .....	4175	36
TOTAL .....	44,845	615

Auction surveys trifling. A number of surveys have been effected under the Mineral Lands and Gold Fields Acts in Montagu, Russell, Devon, and Dorset.

In Wellington, Mr. Windsor has been in constant employment. He has been assisted for a considerable portion of the year by Mr. Sale.—The continued demand for land in West Devon has kept Mr. Hall and his assistant (Mr. A. Hall) fully occupied.—In East Devon Mr. Chalmers complains of the scarcity of survey work.—In Dorset there has been a falling-off. Mr. Lord is at present engaged upon a flying survey of a railway line from Launceston to Beaconsfield.—Cornwall affords steady employment to Mr. G. C. Smith and his assistant, Mr. T. Clark.—Messrs. Walpole, his assistant (C. S. Wilson), Jones, and Power have been employed by the Mines Department.—Mr. Hardy is engaged working up surveys that accumulated during his absence at Flinders' Island.—Mr. Combes finds constant employment in Buckingham. Mr. Innes is kept going in Kent, and is desirous of procuring assistance.—There has been very little progress in Cumberland. Mr. Frodsham has been fairly well employed; he has had the assistance of Mr. W. R. Pitfield from the commencement of this year.

There are no outstanding surveys of importance. The eight selections on King's Island will be surveyed during next Spring.

#### INSPECTIONS.

I have visited four Survey Districts for the inspection of surveys. The results have been generally satisfactory, but in some cases the marking was found to be defective, and the surveyor called upon to rectify it. The work complained of was that of an assistant. In all, 40 lots were inspected. The matter of re-surveys, to settle apparent discrepancies in old work, is one that will cause a heavy drain upon the cost of this Department in the future. It would keep an officer constantly employed in the field to carry out such re-surveys. I hope to be able to get through the other districts next summer.

A considerable amount of trouble has been occasioned to surveyors in clearing up past and accumulated discrepancies in their surveys. Such work is necessarily of an irritating nature. It has been unusually irksome in this case, and more so than it is likely to be in the future, as current matters can be more easily disposed of than those of long standing. In two instances the demands of the Regulations gave rise to a certain amount of friction between the department and the surveyor. There is only one vexatious case of this kind at present outstanding.

Mr. H. P. Sorell complained that the requirements of the Regulations rendered him unable to continue to carry on the work of his district, and resigned his appointment in May last. His son (Mr. John A. Sorell) has been appointed his successor.

#### DRAFTING ROOM.

The number of surveys received for the half year ending 30th June, 1890, is 333; that for the previous six months was 622. The number of surveys examined by the Computing Draftsman for the half year ending 30th June, 1890, is 321, and for the previous half year was 590. Number of plans compiled and drawn for the half year ending 30th June, 1890, is 3, and for the previous six months, 5. The stoppage of payment for overtime for the compilation of plans is the cause of the falling off as compared with previous years.

A complete set of mounted plans, showing the boundaries of the Municipal Districts, and of 58 out of the 94 Road Districts, have been prepared during the 6 months ending 30th June, 1890.

The number of applications charted and otherwise dealt with in the drafting room under the 24th Section, the 5th Section Waste Lands Act, 1869, the 38th Section, and at auction and for lease, for the half year ending 30th June, 1890, is 1140, and for the previous half year 1082, or a total for the year of 2222, which is the largest number on record for any year. The number of Grant Deeds prepared in the drafting room during the half year ending 30th June, 1890, is 270, and for the previous half year was 261.

#### LITHOGRAPHIC WORK.

During the 12 months ending 30th June, 1890, upwards of 100,000 plans, &c. have been printed. In addition to the usual office work, 3000 copies of a small geological map of Tasmania (10 printings in each) have been prepared for the Year Book of Australia, under the supervision of R. M. Johnston, Esq.; a plan of Hobart, showing the city and suburbs in colour, and one showing the electoral districts. Plans and detailed drawings for the Zeehan and Sorell Railways have also been prepared. A large amount of photographic and lithographic work is performed for public institutions, &c. in addition to the numerous Government Departments. A number of maps of Tasmania have been mounted.

The work of this branch has been suspended during the last three weeks consequent upon alterations being carried out, which alterations I feel certain will be of great benefit from a sanitary point of view, and will also greatly facilitate the work of the Department. They will also enable a check to be kept upon the work performed and the cost of this Branch.

#### EXAMINATION OF SURVEYORS.

In April last I submitted a memorandum to you recommending that the Board of Examiners be appointed by Regulation under 50 Vict. No. 11, Sec. 14 of "The Waste Lands Act," in view of raising the status of such Board, and to be in accordance with the provisions of our Land Act. This has been carried out, and a representative Board reconstructed accordingly. Alterations in the Regulations of the Board have been recommended by that body, and approved of by the Governor in Council. These alterations provide for reciprocity with the other colonies, and enable the Board to grant certificates of competency without examination to such surveyors as have been authorised by the Surveyor-General.

Three candidates presented themselves to the Board for examination in December last. Two passed and one failed.

#### SPECIAL SURVEYS.

There is very little to record under this heading. It will be remembered that I urged upon the Government in my last Annual Report the desirability of procuring the services of Mr. R. W. Stokell to, at least, complete and prepare plans of the standard surveys of the City of Launceston and Town of Formby (now West Devonport), as far as these surveys had been carried out on the ground. The latter recommendation was accepted, and I expect the plan at an early date.

It is to be regretted that more special survey work is not undertaken in the interests of the Department. If a standard line were laid down in each district such lines would afford the means for ascertaining to some extent the meridian or azimuth on which surveys have been in the past and are still being made. In respect to surveys adjoining existing boundary lines, the old custom was to run three lines of the section by compass bearing, without any regard to the bearing of what should have formed the datum line beyond what it was represented to be on the chart or tracing supplied by the Department.

Where the lot to be surveyed adjoins an existing boundary or surveyed line, the present survey system requires that such boundary line be carefully traversed, its bearing computed and adopted as a datum for operations. This is, in itself, a great improvement upon the old custom; but it does not meet the object aimed at.

In making isolated surveys in new country, each surveyor fixes his own datum-line from compass bearings. Subsequent surveys have been and continue to be carried on from these surveys in the above more or less imperfect manner throughout the Colony. This has been going on from the commencement. No attention has been paid to the variation of compass, which alters with the longitude in each locality; in some cases the variation is  $9\frac{1}{2}$  degrees. Finally, when these surveys (commenced and prosecuted from

different localities and on different bearings) come to be connected, it is found, in most cases, that they apparently overlap, or that there is vacant space on the plan. This is a more serious matter than may perhaps appear at first sight; so much so was this the case, that the work of compiling county plans on a scale of 20 chains to the inch was found to be so tedious, the discrepancies so great, and to involve so many resurveys, as to be almost impracticable with a much stronger staff of draftsmen than this office possesses at present, and was consequently abandoned, after being commenced a few years since.

The standard lines I have suggested would enable a surveyor to check the azimuth of his surveys and those of others in the district approximately. No great change in the system of survey is intended, but to provide a practical method to assist this Department in dealing with discrepancies in surveys and compiling plans. The work need not be costly, as lines from 40 to 60 chains in length would be sufficient for the present. These lines might be produced, and would no doubt be found to be of great assistance in extending triangulation at a future time.

No Crown Lands Guide has been issued this year, although the information for it has been prepared. It was thought that the valuable Tasmanian Record would supply the want of the smaller publication.

I have the honor to be,  
Sir,

Your obedient Servant,

E. A. COUNSEL, *Deputy Surveyor-General.*

*The Honorable the Minister of Lands and Works.*