

1898.

NEW SOUTH WALES.

REPORT

OF THE

DEPARTMENT OF PUBLIC WORKS,

FOR THE

YEAR ENDED 30TH JUNE, 1897.



SYDNEY: WILLIAM APPLEGATE GULLICK, GOVERNMENT PRINTER.

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THE DEPARTMENT OF PUBLIC WORKS.

(ANNUAL STATEMENT—1896-7.)

The Under Secretary for Public Works and Commissioner for Roads to
The Hon. James Henry Young, M.P., Secretary for Public Works.

The Department of Public Works, 24 January, 1898.

Sir,

I do myself the honour to submit, for your information, the Annual Statement relating to the operations of this Department during the year ended 30th June, 1897.

The gross expenditure for the year amounted to £1,739,872 14s. 11d., of which the sum of £883,203 6s. 9d. was provided from the Consolidated Revenue, and £856,669 8s. 2d. from Loan Funds. This expenditure was distributed as under:—

SUMMARY OF EXPENDITURE, 1896-7.

Head of Service.					Revenue.			Loan.			Total.		
					£	s.	d.	£	s.	d.	£	s.	d.
Establishment*	...	...	...	...	28,308	15	10	.....			28,308	15	10
Railway Construction	...	...	...	...	9,940	2	4	175,426	12	7	185,366	14	11
Tramway Construction	...	...	...	...	10	11	9	12,129	9	7	12,140	1	4
Harbours and Rivers and Water Supply	...	...	...	...	57,687	8	7	267,462	16	6	325,150	5	1
Dredge Service	...	...	...	...	79,255	15	0	.....			79,255	15	0
Country Towns Water Supply	...	...	...	...	.....			21,930	9	10	21,930	9	10
Water Conservation and Irrigation	...	...	...	...	129	6	5	32,518	2	10	32,647	9	3
Government Architect	...	...	...	...	83,969	6	8	166,183	0	0	250,152	6	8
Roads and Bridges	...	...	...	...	621,948	17	3	54,261	1	11	676,209	19	2
Sewerage Construction	...	...	...	...	1,953	2	11	126,757	14	11	128,710	17	10
TOTALS	...	...	...	£	883,203	6	9	856,669	8	2	1,739,872	14	11

* This includes the Ministerial Office and the General, Clerical, and Accounts Staffs.

Comparing these figures with the expenditure of the preceding year, there is a net decrease for this year of £22,612 17s. 7d. The year's expenditure was spread over 34,492 vouchers, and the actual payments were made as follows:—

	£	s.	d.
By the Department, direct	975,997	2	6
By the Treasury	763,875	12	5
Total	£1,739,872	14	11

The following tabulated statement is interesting as showing the distribution of the expenditure under the heads of Contracts, Wages, Salaries, Materials, &c.:—

SUMMARY of Expenditure, showing Distribution under Contracts, Wages, Salaries, and Materials, &c.

Head of Service.	Contracts.	Wages.	Salaries.	Materials, Miscellaneous and Incidental.	Totals.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Establishment			24,533 7 9	3,775 8 1	28,308 15 10
Railway Construction	78,228 1 5	10,778 13 1	17,147 5 1	79,212 15 4	185,366 14 11
Tramway Construction	6,682 1 6	558 17 1	1,616 3 5	3,282 19 4	12,140 1 4
Harbours and Rivers	93,792 3 9	123,085 18 6	22,248 19 5	86,023 3 5	325,150 5 1
Dredge Service	86 17 2	54,670 5 1	3,488 0 0	21,010 12 9	79,255 15 0
Country Towns Water Supply.....	4,705 8 6	7,873 16 6	665 19 1	8,685 5 9	21,930 9 10
Water Conservation and Irrigation...	11,451 12 1	7,902 8 5	4,642 4 1	8,651 4 8	32,647 9 3
Government Architect	187,867 15 11	13,558 7 10	14,699 14 9	34,026 8 2	250,152 6 8
Roads and Bridges.....	340,385 3 10	146,410 1 3	40,246 2 3	*149,168 11 10	676,209 19 2
Sewerage Construction	85,923 7 11	25,683 4 7	10,392 11 6	6,711 13 10	128,710 17 10
	£ 809,122 12 1	390,521 12 4	139,680 7 4	400,548 3 2	1,739,872 14 11

	£	s.	d.
* Includes—Issues to Municipalities.....	77,389	10	3
„ Trustees	9,920	1	10
Equipment and Travelling Expenses (say) ..	16,000	0	0

£103,309 12 1

The number of contracts entered into during the year was 3,587, of an estimated value of £892,172.

RAILWAY AND TRAMWAY CONSTRUCTION.

Railways.

From the report of the Engineer-in-Chief (Mr. Deane), hereto appended, it will be seen that the following extension lines have been completed and opened for traffic during the year:—

Line.	Length.	Opened for Traffic.	Cost to 30th June, 1897.
	m. ch.		£
Jerilderie to Berrigan	21 65	14 Nov., 1896	38,781
Parkes to Bogan Gate	23 38	15 Dec., 1896	50,396
Narrabri to Moree	63 72	1 April, 1897	131,850
Rookwood Cemetery Branch	— 68	20 Feb., 1897	6,563

With the exception of the Rookwood Cemetery Branch Line, all these extensions are of the "pioneer" class, and are intended to afford railway communication in those tracts of level country where the amount of traffic procurable is not sufficient to justify the heavy expenditure entailed by the construction of a thoroughly equipped railway. These pioneer lines have been designed and carried out in the most economical manner, with the result that the average cost per mile is only about £2,028, being some £1,700 per mile less than the cost of the cheapest "light line"—namely, Nyngan to Cobar—hitherto constructed in the Colony.

It is gratifying to be able to report that the benefits accruing to the country from these lines have surpassed all anticipations. In each case the estimate of traffic has been exceeded, while the cost of maintenance has been remarkably low. They have proved to be of great advantage to the development of those areas through which they run, and their success fully warrants your decision for the further extension of similar lines into all suitable districts.

Lines of a like description were in course of construction at 30th June, 1897, as follows :—

Bogan Gate to Condobolin—length, 39 m. 22½ ch.

Nevertire to Warren—length, 12 m. 34 ch.

The first-mentioned is a continuation of the Parkes to Bogan Gate Extension, and its completion may be looked for at an early date.

The Nevertire to Warren Line, which has now (24th January, 1898) been completed and opened for traffic, is the first experiment on a comparatively large scale of the construction of a Railway Line by the Department on the day-labour system without the intervention of a contractor.

This work was begun and carried on under somewhat adverse conditions. The weather for a considerable period was unfavourable, the ground at one time being so hard that the ploughs could not be used, and afterwards becoming so sodden in consequence of heavy rains that operations were brought to a standstill. There was also considerable difficulty experienced by the Department in procuring the skilled labour required for some portions of the work, owing, it is believed, to the exodus of the better class of railway men to the West Australian Goldfields.

These difficulties have delayed the completion of the line, and slightly added to its cost, but, notwithstanding these hindrances, the experiment has proved satisfactory. It has conclusively shown that the Department is not entirely dependent upon contractors, but that it is capable in itself not only to design, but also to execute, works of considerable magnitude.

It may be freely admitted that a contractor possesses several advantages over the Department, as, for instance, in the profitable employment of his working plant. A contractor has the chance of securing other contracts either in this or the neighbouring colonies, and so getting the best possible return from the continuous use of his plant, whereas the Department, after purchasing a costly plant and using it on one job, may have afterwards to allow it to lie idle for a lengthened period, when it becomes a dead loss. Again, the Department, having to work under hard and fast regulations, is not allowed equal facilities with a contractor as regards the supply of materials, and the engagement and dismissal of employees.

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On the other hand, under the day-labour system, the Department is saved from the many vexatious complications and claims which are so liable to crop up under the contract system. Once the work has been completed by day-labour, its exact cost is definitely known, and there is no possibility of demands for extra payments being brought against the Department. This is a very important aspect of the question, as the Department has had, in the past, to face not a few very heavy claims on the part of contractors. For this reason alone, if for no other, the Engineer-in-Chief is prepared to recommend that, wherever practicable, the day-labour system should be adopted in preference to giving the work out to contractors.

A short extension designed to connect Darling Island with the Darling Harbour Line was commenced towards the end of the year. In order to meet the ever-growing demand for wharf accommodation in the Port of Sydney, it was decided to utilise the extensive and valuable water frontage of Darling Island, and it thus became necessary to connect it with the Darling Harbour Line. The extension will consist of a double line of railway, and a contract for the formation of the first length of 21 chains is now in progress.

The construction of the undermentioned lines has been authorised by Parliament :—

	Length	Estimated Cost.
Berrigan to Finley ...	13 miles 62 chains ...	£27,250
Tamworth to Manilla ...	29 miles 45 chains ...	73,170

The necessary plans and working drawings have been prepared for the Berrigan to Finley Extension, which it has been determined to construct on the day-labour system. The commencement of the work has, however, been delayed, pending compliance with certain conditions specified in the Act authorising its construction.

Influenced no doubt by the exorbitant claims frequently made on the Government by owners of lands resumed for railway purposes, Parliament deemed it advisable to insert the following proviso in the Berrigan to Finley Railway Act :—

Provided that the said works shall not commence to be constructed unless the private lands required for the construction of the line (except town allotments) have been contracted, by instrument in writing, to be conveyed by deed of gift, transfer, or exchange from the owners to the Crown, or there has been paid to the Constructing Authority a sum equal to, or greater than, the amount estimated by the said Authority to be required for the resumption of land for the said work, and the money so paid shall be applied for the purpose of the said resumption.

Similar provisos appear in the Jerilderie to Berrigan and the Nevertire to Warren Railway Acts.

The effect of this proviso has in each instance been to delay the commencement of operations. The work of obtaining the proper transfers from the owners and others interested in the lands required for the construction of the railway is intricate, and has occupied some considerable time, and inasmuch as the value of the private lands required for the above-mentioned lines has been insignificant, it is doubtful whether the savings effected by the operation of the proviso in question are not counterbalanced by the delay thus incurred in carrying through the works. So far there have been two refusals on the part of owners to transfer the required lands without compensation, and in each case the persons directly interested in the construction of the line have subscribed the amount of compensation asked for.

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In the Tamworth to Manilla Railway Act, Parliament has provided that the work shall not be commenced if the compensation to be paid for the land required to be resumed is estimated to exceed the sum of £2,000, unless there has been paid to the Constructing Authority a sum equal to or greater than the amount estimated in excess of that sum.

Proposed extension of the Railway into the City of Sydney.—The consideration of this important undertaking, which has been so frequently and urgently advocated by the Railway Commissioners, has engaged much of the time and attention of the Branch during the past year.

The Parliamentary Standing Committee on Public Works having been appointed a Royal Commission to inquire into the whole question, the Railway Construction Branch was called upon to furnish voluminous plans and estimates of cost of the various proposals brought before the Commission. After a most exhaustive investigation, the Royal Commission reported, almost unanimously, in favour of the extension of the railway into the city by the route and according to the plan described as the St. James' Road Scheme. At a later date the question was referred by Parliament to the Parliamentary Standing Committee on Public Works, who, after a second and thorough inquiry, endorsed the recommendation of the Royal Commission.

The services and assistance rendered to the Royal Commission and to the Public Works Committee in this inquiry by Mr. Deane and his staff were most valuable and much appreciated.

Permanent-way Material.—In August, 1896, the Government invited tenders for the manufacture within the Colony of 150,000 tons of steel rails, but no satisfactory tender was received. The offer made by Messrs. G. and C. Hoskins, of Sydney, afforded proof, however, that they were prepared to take in hand the risk of erecting the necessary plant for the manufacture of steel rails, but the price asked for by them was so considerably beyond the cost of imported rails that the Government could not see its way to accept their tender.

Tramways.

Mosman's Bay Extension.—During the year the extension from Spit-road to Mosman's Bay of the Military Road Electric Tramway, a length of 1 mile 37 chains, has been completed and handed over to the Railway Commissioners. The heavy gradients on this extension afford a severe test of the suitability of electric traction to the more rugged and uneven districts met with in this portion of the Metropolitan Area, and although these have demanded the supply of extra power, the working of the line has so far proved satisfactory.

The total expenditure on this extension up to 30th June, 1897, was £6,484.

Willoughby Electric Tramway.—This further extension in the North Sydney district of electric traction on the overhead-wire system was authorised in December, 1896, and its construction is being rapidly proceeded with. The extension starts from the present terminus of the cable tramway in Falcon-street and ends at Victoria Avenue, Chatswood, a length of 2 miles 45 chains.

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In connection with this line, the section of the existing cable tramway between Ridge-street and the terminus in Falcon-street will be converted into an electric line, the motive power for the whole distance from Ridge-street to Chatswood being supplied from generators placed in the Ridge-street engine-house. The total cost of this extension, including an additional generator and a necessary enlargement of the car-house, is £19,600. The completion of this work may be expected about March, 1898.

Rose Bay Electric Tram.—Another extension on the same system as the preceding is the line which has been authorised to be constructed from the present cable tramway terminus at Ocean-street to Rose Bay—a distance of 1 mile 23 chains of single track. The motive power will be supplied from generators placed in the cable tramway engine-house at Rushcutters' Bay. The same generators will be availed of to provide the power required to work the pumps in connection with the Double Bay Low-level Sewerage Scheme.

George-street and Harris-street Electric Tramway.—This tramway, the construction of which at an estimated cost of £130,500 was authorised by Parliament in September, 1896, will be the most prominent instance of electric traction in the Colony. The line will start from the eastern side of Circular Quay, run along George-street to the Redfern Railway Station, and then continue along Harris-street to the intersection of John-street, Pyrmont. It will consist of a double track throughout its whole length of 3 miles 20 chains. Including cross-over roads and junctions, this is equal to a length of single track of about 7 miles.

The overhead-wire system has been adopted for this tramway after a very careful examination into the merits of the various methods of electric traction in use throughout the world. It was found that the overhead-wire system was being almost everywhere adopted in preference to all others, inasmuch as it possesses the advantages of comparative lowness in initial cost with a proved efficiency and cheapness in working.

Contracts for most of the materials required for the construction and equipment of the line are now in course of execution. The contract for the steam-engines and generators has been placed with an American firm who have a world-wide reputation for the manufacture of this special class of machinery.

HARBOURS AND RIVERS, WATER SUPPLY, BRIDGE CONSTRUCTION, WATER CONSERVATION.

As Mr. Darley's report, as well as those of the several Assistant Engineers, furnish details of the various works completed and in progress during the year, I need only draw particular attention to a few of the larger undertakings.

Improvement of Northern Rivers Navigation.

The various schemes for the improvement of the entrances to the seven principal northern rivers, by means of the construction of guide-banks, training-walls, and breakwaters, have made good progress during the year.

Tweed

Tweed River.—The training-walls at the entrance to this river have now a total length of 28,700 feet, the additions made during the year being as follows :—

No. 5 wall...	...	...	...	...	...	...	240 feet.
No. 2 wall...	...	...	...	...	...	...	2,520 feet.

The total expenditure for the year in connection with this river was £6,151.

Richmond River.—Steady progress continues to be made with the extension of the breakwaters, 460 feet having been added to the northern and 574 feet to the southern, during the year. The many tributaries of the Richmond River have also been the subjects of improvement works in the way of snagging operations and the construction of fascine banks where necessary. The North Creek Canal, which has a length of $2\frac{1}{4}$ miles, was formally opened for traffic on 20th July, 1896, and that section of it lying between Tintenbar Road Bridge and North Creek is now being enlarged to a width of 60 feet. The amount expended on the Richmond and its tributaries during the year was £26,137.

Clarence River.—With the exception of extending the north training-wall a further distance of 60 feet, the work carried on at the entrance to the Clarence River has been principally of a preparatory nature. It has comprised the work of getting the plant, roads, &c., into proper order, making a new cutting into the quarry, and erecting a wharf on Freeburn Island for loading stone into the punts, together with a coal wharf and bunker. When these preparatory operations are completed, the work of extending the north training-wall will be continued, and a start made with the construction of the Goodwood Island guide-bank. The expenditure for the year in connection with the Clarence and its tributaries was £13,840.

Satisfactory progress was made in extending the various training-walls at the entrances to the Bellinger, Nambucca, Macleay, and Manning Rivers. The breakwater designed to form a harbour of refuge at Trial Bay has been extended a further distance of 60 feet, making the total length now constructed 600 feet, out of a proposed ultimate length of 2,000 feet. The average number of prisoners employed on this work was 116, and the year's expenditure amounted to £4,331.

In the Appendix will be found plans of the entrances to all the above-mentioned rivers, showing the entire schemes as proposed and the sections carried out up to 30th June, 1897. The total expenditure incurred in connection with these various works up to that date has been £720,000.

It is scarcely necessary for me to point out here that the improvement of these rivers, by making them serviceable and convenient for purposes of navigation, is a matter of vital importance in the development of the Colony. They form the natural highways of some of the richest and most fertile portions of the Colony, and for many years to come must constitute almost the sole outlets for the trade and commerce of the Northern districts. The moneys expended on their improvement may fairly be considered as analogous to the large amounts yearly spent on the construction and maintenance of roads in the other parts of the Colony.

Newcastle District.

The regular work of maintaining and improving the efficiency of Newcastle Harbour by removing reefs, dredging, reclamations, alterations and additions to the wharfage accommodation, &c., has been steadily pursued during the year. Extensive preparations have also been made for the construction of the Southern Breakwater and guide-wall.

A long-felt want in the proper working of the port has been met by handing over to the local Marine Board the Government steamer "Ajax," which has been converted into a pilot-steamer of the first class, and will no doubt prove to be a valuable addition to the equipment of this important harbour. The work of conversion was wholly carried out at the Fitzroy Dock Workshops. A photograph of this handsome steamer is given as an illustration in the Appendix.

Sydney Harbour.

A reference to Mr. Darley's report will show that a very large amount of work has been accomplished during the year in connection with the various wharfs, jetties, berthing facilities, and reclamations in Sydney Harbour. A notable addition to the wharfage accommodation has been begun at Darling Island, in order to meet the constant demand for shipping-berths. The proposed new wharfs in Woolloomooloo Bay have already been bespoken, and it has, therefore, been found necessary to utilise the water frontage of Darling Island for wharf purposes. It has been decided to build a quay-wall, composed of monolithic blocks of concrete, round the island, a length of about 2,500 feet, and the construction of the first section of 450 feet has been commenced. All the wharfs hitherto constructed have been formed of timber, but the site round Darling Island is specially suitable for the building of a concrete wall, as the bottom is all sound rock at a depth of about 28 feet from low water. The initial cost of such a structure will be considerably greater than that of a timber wharf, but the permanency of the wall and the consequent saving in the matter of renewals and repairs will, it is thought, in the course of a few years more than compensate for any excess in the first cost of the work.

Proposed South Coast Harbour.

A scheme for the construction of a deep-water harbour at Port Kembla has occupied a good deal of Mr. Darley's time and attention during the past year. The want of a sheltered coast harbour where vessels might safely load and unload in all states of the weather has long been held to be a serious obstacle to the development of the coal trade and commerce of the Illawarra district, and the general consensus of opinion pointed to Port Kembla as the most suitable and convenient site for the construction of such a harbour.

The scheme designed by the Department provided for the construction of two breakwaters—one, the eastern, to be 2,800 feet in length, and the second, or northern, to be 3,530 feet in length—which would enclose an area of 260 acres, having a depth of 24 feet and over at low water, and 30 feet over half the area when dredged out. The estimated total cost of the proposed works, exclusive of the purchase of land and private rights to existing jetties and Railway lines, was £440,000.

The scheme was in due course referred to the Parliamentary Standing Committee on Public Works who, after an exhaustive inquiry, recommended the construction of the eastern breakwater only, as being sufficient for present requirements, at an estimated cost of £200,000. The matter has now to come before Parliament for a final decision.

Dredge Service.

The total dredge plant possessed by the Department at the present time comprises 14 ladder dredges, 8 sand-pump dredges, 7 grab and sand-pump dredges, 12 grab dredges, 25 tugs, and 76 silt-punts. As will be seen from the tabulated statements attached to the report of the Superintendent, the work accomplished during the year has been of a highly satisfactory character. More especially has
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mention to be made of the results achieved by the sand-pump dredges. Through their agency there is every year brought into existence a large area of reclaimed land—principally in Sydney and Newcastle Harbours—which constitutes a most valuable asset in the public estate of the Colony.

In order to more expeditiously deal with the shallow bars existing at most of the Northern River entrances, the Department has now in course of construction on the Clyde, Scotland, a twin-screw dredge of 700 horse-power, designed to load herself when steaming slowly over bars, and to draw, when laden, not more than 5 feet, yet powerful enough to contend with heavy seas. This vessel will carry on the work of deepening the river entrances by means of a suction pump worked while she is slowly steaming in or out over the bar; the spoil will then be deposited at sea or some other suitable place. Judging from American experience with a similar kind of dredge, this new vessel should prove a valuable addition to our existing dredge-plant.

Fitzroy and Sutherland Docks Establishment.

In addition to the large amount of general repairs and renewals effected in connection with the dredge service and other divisions of the Harbours and Rivers Branch, as detailed in the report of the Principal Assistant Engineer, this establishment has during the past year satisfactorily carried out the work of converting the s.s. "Ajax" into a pilot steamer for service at Newcastle, and the grab dredges "Delta," "Eta," "Theta," and "Gamma" into combined grab and sand-pump dredges.

The facilities here afforded for the docking of the war-ships and the huge merchant steamers that visit Sydney are yearly becoming more appreciated, and help considerably to bring trade to the port. During the year fifteen war-ships, nineteen merchant steamers (some of them, such as the German mail-boats, being of immense size), and two sailing vessels,—the aggregate tonnage being 121,713 tons,—made use of the Sutherland Dock for the purposes of overhaul and repairs.

Metropolitan Water Supply Construction.

A new high-level covered reservoir, capable of holding 17,000,000 gallons of water, is being constructed on a site in Centennial Park. It is intended as a substitute for the existing Paddington reservoir, which has been found to be too small, and at an elevation too low to give a proper supply of water to the important and thickly-populated portions of the city and suburbs now fed by it. The new reservoir will occupy an area of about $3\frac{1}{2}$ acres, will be oval in form, and a special feature in its design will be a groined coke-concrete roof. An intersecting wall will divide the reservoir into two compartments, so that at intervals the one can be cleaned while the other maintains the water supply. The reservoir is to be finished in April, 1898, and when all complete the top of the roof will be grassed over so as to form a promenade or be used for other recreation purposes. The total cost of the work, including the expenditure on the necessary new mains, valves, &c., will be about £65,000, of which the sum of £22,941 had been spent up to 30th June, 1897.

Country Towns Water Supply.

During the year water supply works were completed for the towns of Armidale and Parkes, and the construction of water supply works for Tamworth was in progress. These are all gravitation schemes, and in each case the concrete dam for the storage reservoir has been carried out by day labour.

At Tamworth the great fall available will be utilised for the purpose of furnishing power for the lighting of the town by electricity.

The additional scheme now completed for the Parkes municipality was rendered necessary by the failure of the original drift-bed pumping scheme. Owing to a similar cause, additional sources of supply will require to be provided for Cootamundra and Bathurst, and in both cases it is proposed to adopt gravitation schemes.

Plans and estimates have been prepared for gravitation schemes for Tenterfield, Mudgee, Picton, Wollongong, and Wellington.

Bridge Construction.

During the year, 124 new bridges (including 53 renewals) were completed and opened for traffic, aggregating 13,483 feet in length, and consisting of 357 plain timber beam spans, 20 timber truss spans, one steel lift span, and 4 masonry and brick arch spans. With the exception of the steel lift span at Swan Hill and the three steel spans at Wallis Creek, Maitland, all these bridges are constructed of timber, though in many cases iron or concrete piers and abutments have been used.

The most important of these new bridges were the following :—

Swan Hill Bridge over River Murray, which has been erected at the joint expense of this Colony and Victoria. At this point on the river there is a large amount of live-stock traffic, which hitherto was carried by a hand-power punt, and the want of a bridge has been long and severely felt. Counting from the river source, it is the tenth bridge spanning the Murray, and is the most westerly point on the river touched by the Victorian railway system. It has a total length of 381 feet, and the cost of the structure, excluding incidental expenses, has been £7,626, half of which is defrayed by the colony of Victoria.

Inverell Bridge over the M'Intyre River was completed and opened for traffic in July, 1896, replacing the old and very narrow bridge which formerly crossed the river at this town. Its total length is 440 feet 9 inches, with a 24 feet roadway, and its cost, excluding incidental charges, has been £8,939.

At 30th June, 1897, contracts were in progress for the erection of sixty-one new bridges, having an aggregate length of 10,970 feet, and the total estimated cost being £73,462. Chief amongst them may be mentioned the suspension bridge over the Kangaroo River at the point where the Moss Vale-Nowra coach road crosses the gorge in which the river flows. This is the first suspension bridge erected by the Department, the site being admirably suited for this description of bridge. The formation is of solid sandstone, offering an excellent anchorage for the cables as well as an unlimited supply of excellent stone for the masonry piers. The depth of the gorge, too, renders the suspension type of bridge the most economical. The work is well advanced, and its completion may be expected in March, 1898; the estimated cost is £8,000.

Another important bridge now in course of erection is the bridge over the Hunter River at Morpeth, which will take the place of the hand-power ferry at present carrying the traffic. It will have a total length of 815 feet 9 inches, with an 18-foot roadway, and is estimated to cost £9,000.

Water Conservation and Irrigation.

The most important event in connection with this branch during the past year has been the passing of the Water Rights Act. Successive Governments have admitted the necessity for legislation dealing with water rights, as it was recognised that British enactments did not meet the requirements of this Colony, more especially
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of the Central and Western Divisions. The utility and importance of the Water Rights Act, which became law on 1st November, 1896, were strikingly exemplified by the fact that, before 1st February, 1897, 471 applications for licenses for dams, pumping engines, &c., had been received. In connection with these applications it is satisfactory to note that the security afforded by the Act is inducing landowners to construct a better class of work than they were formerly willing to undertake, as the circumstances now warrant a greater outlay on account of water conservation purposes.

The completion of the lock and weir in the River Darling, near Bourke, marks an important advance towards the better utilisation of our western rivers. Owing to the unstable character of the channel of the River Darling, and to the great diversity of conditions, ranging from an almost dry bed to high floods, it was a matter of considerable difficulty to decide on a design for lock and weir which would be sufficiently substantial to withstand the varying conditions, and yet keep within reasonable limits as regards cost. The class of weir constructed at Bourke is an entirely new departure in the Australian colonies, and may be regarded as partaking largely of the nature of an experiment. The reports received from time to time since the lock and weir were brought into operation tend to show that so far the works are a thorough success.

The investigation by Colonel Home, R.E., of the whole question of water conservation and irrigation throughout the Colony was completed by that gentleman within the year for which his services were specially engaged. Briefly stated, the effect of Colonel Home's report is that there is only one large scheme of water conservation and irrigation which merits immediate attention. This is the proposal to divert the waters of the Murrumbidgee through the plains which extend between that river on the north and the Billabong Creek and Edwards River on the south. Colonel Home, however, was of opinion that irrigation settlements, such as are being created at Hay and Wentworth, gave fair prospects of proving successful. Such works would also help to popularise irrigation, and to introduce improved methods of cultivation. The development of irrigation is, in the opinion of Colonel Home, a comparatively slow process, and, being a new industry in the Colony, a little caution in expanding it can do no harm, and may save a good deal of money and trouble.

In regard to the irrigation scheme at Wentworth, the Trust created under the provisions of the Wentworth Irrigation Act has been dissolved, and the powers conferred by the Act assumed by the Government. The pumping plant has been erected, and the channels completed. It is intended that the administration and future extension of the works shall be retained in the hands of the Government until satisfactory arrangements can be made for management by the settlers themselves.

GOVERNMENT ARCHITECT'S BRANCH.

It will be seen from the report of Mr. Vernon, attached, that the expenditure for the year in connection with this Branch reached the amount of £250,152 6s. 8d., the number of separate structures dealt with being 583.

The new buildings completed during the year comprised:—

4 Post and Telegraph Offices, costing	...	...	£6,362
3 District Lands Offices, costing	...	...	11,184
6 Court-houses, costing	...	...	34,833
5 Police Stations, costing	...	...	7,897
6 Lock-ups, costing	...	...	10,165

Special

Special mention may be made of the handsome and commodious court-houses erected at Parramatta and West Maitland. Both buildings have been carefully designed to meet all possible requirements as regards the accommodation and convenience of the Judges and others who have to transact business therein, and they may fairly be held to be in advance of previous efforts in this description of building. Photographs are given in the Appendix of the Parramatta court-house, the Dubbo and East Maitland lands offices, and of the Mount Victoria post-office, the last named being recognised as a model type of building suitable for the Mountain districts.

Several extensive additions and improvements to existing buildings have been completed during the year. The Supreme Court has been enlarged by the addition of two fully-equipped court-rooms and a range of chambers and offices for the accommodation of the Judges and their Associates. Additions have also been made to the Chancery-square Court and the Custom House, the latter being required to accommodate the staff connected with the Land and Income Tax branch. A new and extensive hospital building, fitted with all modern appliances, has been added to the Rydalmere Hospital for Insane, and will greatly increase the efficiency of that large establishment.

The more important works in hand at 30th June, 1897, were the following :—

Building.	Description of Work.	Expenditure to 30th June, 1897.
		£
Kenmore Hospital for Insane	New Building	88,940
Redfern Court-house	New Building	7,306
Health Board Offices	New Building	4,810
Art Gallery... ..	Additions	9,579
Government Printing Office	Additions and improvements	18,774
Royal Mint... ..	Additions and improvements	6,612
Treasury	Additions	2,642

The Kenmore Hospital for Insane, which was commenced in 1894, will be a very prominent addition to the public buildings of the Colony. The final completion of the whole scheme of buildings will not be accomplished for some considerable period. In the meantime, however, such divisions of the institution as are finished are at once utilised and occupied by patients.

The additions being made to the Government Printing Office, the Royal Mint, and the Treasury are in each instance required to meet the urgent necessity for increased accommodation.

Mr. Vernon, in his report, reiterates his previous warnings as to the danger of allowing public buildings in the country districts to drift into a state of dilapidation through want of periodical attention. The Branch has now under its care close upon 1,000 separate buildings and structures scattered all over the Colony, and Mr. Vernon's observations with respect to the insufficiency of the sum taken on the annual Estimates to keep existing buildings in a proper state of repair are deserving of serious consideration.

The preparation of designs and plans for the proposed new Houses of Parliament for the Colony has during the year occupied much of the time and close personal attention of Mr. Vernon and of a special staff of assistants.

The inadequacy of the present building in respect of accommodation and convenience has long been admitted. So far back as 1860 competitive designs for new Houses of Parliament were invited by the Government of the day, but, beyond receiving

receiving the designs and awarding the premiums, no further action was taken in the matter. A portion of the present building was brought into use as a Legislative Chamber in the year 1829, and since that date it has continued to be repaired and added to as circumstances demanded. Some of the more recent additions are in every respect satisfactory; but, taken as a whole, the building is unsuitable for present requirements, is a constant source of heavy expense for repairs, and, owing to the greater portion of it being constructed of wood, is subject every day to the imminent risk of destruction by fire.

The designs and plans submitted by Mr. Vernon for consideration by the Parliamentary Standing Committee on Public Works provided for a Council Chamber with accommodation for eighty members or more, and an Assembly Chamber for 182 members, with a capacity for increase of accommodation suitable for 294 members. They also provided for additional special accommodation for His Excellency the Governor, the President, the Speaker, the Ministry, and the members of both Houses. Much improved accommodation was also made for the *Hansard* staff, reporters of the Press, Parliamentary officials, and the general public. Compared with the existing building, Mr. Vernon's scheme showed an increase of thirty-three in the number of rooms and of 32,648 feet in the superficial area.

At the request of the Committee, Mr. Vernon prepared two additional designs, one for altering and improving the accommodation in the present building, at a cost of from £10,000 to £15,000, and the other for a new building which could be erected for about £250,000. Since the close of the year under review the Committee has completed its inquiry, and has recommended the adoption of the scheme submitted by Mr. Vernon providing for alterations to the present building at a cost not exceeding £15,000. In the opinion of the Committee, the existing building, with the proposed alterations, should suffice for the business of Parliament for many years to come, and, therefore, the erection of new Houses of Parliament may be deferred.

ROADS AND BRIDGES.

The Principal Assistant Engineer for Roads (Mr. Scarr), in his report, attached, gives a succinct statement of the ever-growing volume of operations carried on by his branch. He also furnishes a large amount of statistical information respecting the roads mileage, the number of bridges of different kinds, culverts, &c., under the charge of the Department, together with details of the expenditure incurred thereon during the year.

The following statement summarises, in tabulated form, the roads mileage, the number and length of bridges and culverts, and the year's expenditure at 30th June, 1897 and 1896, respectively :—

Date.	Roads. Mileage.	Bridges.		Culverts.		Total* Branch Expenditure for year.
		No.	Length in feet.	No.	Length in feet.	
1897—30th June	39,874	2,842	267,964	32,671	486,907	£ 676,210
1896—30th June	38,952	2,771	260,519	31,073	461,578	776,400
Increases during past year ...	922	71	7,445	1,598	25,329	£100,190 (Decrease.)

* Includes expenditure on new bridges completed and in progress.

It

It will be seen from this table that, while the roads mileage and the number of bridges and culverts show a very considerable increase over the preceding year, the total expenditure of the branch for the year has decreased to the extent of £100,190. On this point, Mr. Scarr remarks that expenditure has been strictly confined to the most urgent requirements, and the cost of maintenance reduced to the lowest possible limits, compatible with efficiency.

Notwithstanding this diminished expenditure, the state of the roads generally is fairly good, due, in a great measure, to the fair weather conditions prevailing during the year.

The serious injury done to our roads by the carriage of heavy loads on waggons with narrow tyres, shows that legislation in connection with the regulation of the width of tyres is urgently required. The expenditure upon repairs rendered necessary from this cause is a heavy burden on the resources of the Department, and deserves prompt attention.

During the year, 1,038 miles of roads were cleared, and 666 miles wholly or partially constructed; also, about 5 miles of culverts and 6 miles of causeway were constructed, and 5,008 rods of fencing erected. Four hundred bridges were repaired, and 53 wholly renewed at a cost, respectively, of £29,298 and £36,850.

There were also under the charge of the branch 97 punts, 1 steam-launch, 4 horse-boats, 69 flood-boats, and 120 other boats, generally used for ferry purposes.

The monthly average number of men directly employed by the branch was 1,504, while contractors and their men averaged 5,200, making a total of 6,704 men constantly employed in connection with the roads and bridges of the Colony.

The system hitherto in force in connection with the collection of tolls upon the ferries worked directly by the Department has, for some time past, been regarded as unsatisfactory. A method of registering the number of ferry passengers, by means of tickets, was therefore brought into operation during the year, and it is anticipated that the new system will tend to stop the leakage in revenue, and thus help to mitigate the considerable yearly loss incurred in the working of the ferries.

In the report of the Assistant Engineer for Bridges, reference is again made to the desirability of more freely using stone and iron in the construction of bridges, with a view of diminishing the frequency and, as a consequence, the cost of repairs. I am still of opinion, however, that, although in some cases it may be advisable to build masonry or iron piers, it is on the whole more economical to make use of the unrivalled native timbers at our disposal in the erection of bridge structures.

SEWERAGE CONSTRUCTION.

The very complete report furnished by the Engineer for Sewerage Construction, which will be found in the Appendix, renders it unnecessary for me to refer in detail to the many important works which have been in progress during the year now under review.

This Branch was placed under the direction of Mr. J. Davis, M. Inst. C.E., formerly Principal Assistant Engineer, on 1st July, 1896, and since that date it has been carefully reorganised, a number of competent officers added to the staff, and energetic efforts made to grapple with the urgent requirements of the metropolis
and

and some of the larger country towns. During the year thirty-two contracts were got out, the value of the work designed amounting to £329,015, while, in addition, the plans and drawings for works valued at £70,560 were in course of preparation.

The result of the year's efforts has been to bring within measurable distance the completion of the scheme for sewerage the Metropolitan area. The works as authorised by Parliament in the year 1888, subject to some slight modification in the original plans, may now with some confidence be reckoned upon to be completed in about three to four years from this date.

Included in the appendix will be found a map of Sydney and Suburbs showing all the main sewers constructed and in progress, and also the proposed sewers which are required to complete the general scheme.

The total expenditure incurred in connection with sewerage works during the year amounted to £128,710 17s. 10d.

Among the works undertaken during the year calling for special mention are those in course of construction for the treatment of sewage at the main outfall of the North Shore sewerage system. They are situated at Willoughby Bay, an arm of Middle Harbour, and are the first of their kind attempted in the colonies. They embrace screening and mixing chambers, settling tanks, sewage filter presses, refuse destructors, and sand filters. They have been designed on the most modern system, and it is anticipated that when finished they will be the means of treating the sewage most completely.

Recent experiments on a large scale have been very successfully carried out in the city of Exeter during the year, which will probably be the means of simplifying the treatment of sewage.

Briefly stated, the system is as follows :—

The sewage is run into large covered tanks called "Septic tanks," and then is allowed to decompose. This decomposition is carried on, as all other fermentation or decomposition is, by the aid of micro-organisms which break up the sewage from complicated organic matter to more simple forms, which are readily acted upon and further decomposed whilst passing through the filters forming the second portion of the process. The effluent, after passing through the tank and filters, is stated to be sufficiently purified to be allowed to flow away without the slightest danger of any nuisance being created.

It will thus be seen that one of the greatest difficulties encountered hitherto (except in such cases as where sufficient area of land for broad irrigation is available) namely, the disposal or destruction of the sludge, has apparently been overcome, as in the "Septic" system, there is practically no sludge, all solids being so finely broken up that the filter can readily deal with them. Therefore it becomes no longer necessary to deposit the sludge in settling tanks, with all the after trouble attending its final disposal. The experiments have been followed with much interest, and so impressed is the Department with their importance that the construction of similar works is now under serious consideration.

During the year the question of how best to deal with the sewage from the low-level areas on the foreshores of the harbour has been considered; and, after having been very carefully investigated, it was decided to lift this sewage by means of sewage-pumps, driven by electrical motors.

Comparative

Comparative estimates were made, taking compressed air, hydraulic, and electrical power, respectively, throughout the system. These were fully reported upon by the Engineer for Sewerage Construction, and the matter was then placed before the Board of Reference, who concurred with the Engineer for Sewerage Construction, and finally decided that electrical power would be the cheapest and most satisfactory.

Twenty-four collecting stations will be required to deal with the foreshores from Balmain to Woolloomooloo, and these stations will be electrically controlled from one central station at Darling Harbour, where a very extensive generating plant is being erected to provide motive power for the tramways. It is on account of the large nature of the works from which power for sewerage purposes will be procured, that this method can be introduced, it is believed, more economically than any other; New South Wales being the first country in the world to undertake such a system.

The power will be supplied by the Railway Commissioners to the Sewerage Department at 1d. per electrical Board of Trade unit; and it is calculated, after taking into consideration the more or less intermittent nature of the work, that we could not procure compressed air or hydraulic power more cheaply.

More than ordinary interest has been attached to the aqueducts carrying the sewage across White and Johnston's Creeks; these structures being built on the "Monier" system, and being the first works of an extensive nature to be carried out on this system in the colonies. They are a pronounced success, and in every way have fulfilled the expectations of the Department.

A special class of work which has been carried on by the branch during the year is the detail survey of the Metropolitan area, Newcastle and suburbs, and other large centres of population, where it is likely that sewerage works will in course of time have to be constructed.

This extensive undertaking was originally commenced in the year 1877 on the recommendation of Mr. William Clark, C.E., who pointed out its absolute necessity as regarded the correct and economical carrying out of sewerage works. Its execution was placed under the administration of the Minister for Lands, who continued to control the same up to 1st July, 1896, on which date it was transferred to this Department. At the same time a number of officers—namely, four surveyors and four draftsmen—who had been employed on this particular duty, were taken over from the Lands Department. Although, owing to the pressure of other urgent demands for their services, these officers are not continuously employed on the detail survey, the branch has been able to keep the work in advance of requirements. The results of their labours, though primarily intended for sewerage purposes, are available for, and utilised by, other Departments of the Government.

Before concluding this review of the year's work of the Sewerage Construction Branch, I deem it a duty owed to the Department generally, and to this branch in particular, to draw attention to the report, dated 21st November, 1896, of the Royal Commission appointed by the Governor-in-Council to investigate certain charges made in the Legislative Assembly affecting officers of the Department, in their dealing with and control of the sewerage contracts held by Carter & Co., and certain other persons.

The charges to be investigated were of serious moment to all concerned, inasmuch as they alleged acts of collusion between officers of the Department and the
above-mentioned

above-mentioned contractors with a view to defraud the public Treasury—such as advancing to the said contractors sums of money improperly, without sufficient security, and in violation of the terms of the contract; incompetency in carrying out and administering the contracts; placing documents on the Table of the House in a form calculated to mislead Members of the Assembly; and allowing defective work to be put in the contracts.

The Commission was appointed on 21st May, 1896 (His Honor Judge Murray being sole Commissioner), “to make a full and diligent inquiry touching all questions in any way raised in the Legislative Assembly of the Colony of New South Wales, whether specifically or in course of debate, as to any improper conduct in connection with the contracts, past and present, of Messrs. Carter, Gummow, & Co.; John Carter, D. G. Snodgrass, George Maddison, Peter Ewing, F. M. Gummow, George Forrest, and James Gillan, with the Department of Public Works, and touching the truth of any charges so, as aforesaid, made in connection with the performance or variation (if any) of such contracts, or the conduct of any public officer, or of the said contractors, their agents, or workmen, in relation thereto; and to make the fullest investigation into any charge or matter in relation to the said persons or contracts.”

The Commissioner, after a patient and exhaustive investigation which occupied 66 sittings and included the examination of 114 witnesses, furnished a very careful and elaborate report, summing up in these words:—

“Finally, in your Commissioner’s opinion, none of the charges brought against Mr. Hickson have been proved by the evidence that has been produced. Your Commissioner has failed to discover in that evidence any grounds for further inquiry; and, in your Commissioner’s opinion, Mr. Hickson and the other responsible officers of the Works Department stand exonerated from all suspicion of improper conduct in relation to the matter into which your Commissioner has been instructed to inquire.”

It cannot but be gratifying to you as Administrator of this large and important Department, and to the public generally, to find that, after undergoing the most searching scrutiny, the officers of the Department have achieved such an effective vindication from the grave and serious charges brought against them.

LAND VALUATION.

An important change took place in the administration of this Branch, in November, 1896, Mr. J. B. Thompson, formerly valuator, having retired in accordance with Section 68 of the Public Service Act, after thirty-four years’ faithful and efficient service. Mr. E. J. Sievers, the present valuator, was appointed to take his place from 15th November, 1896.

Mr. Sievers’ report, attached, gives a resumé of the numerous resumptions, valuations, and claims that have been dealt with during the year, the total amount expended in connection therewith being £38,361 3s. 3d.

WATER SUPPLY AND SEWERAGE BOARDS.

The Metropolitan Board of Water Supply and Sewerage has already presented to you its Report for the year, and has therein furnished a full and detailed statement of its operations and financial position. It is accordingly unnecessary for me to do more than draw attention to one or two of the more notable items, which serve to show the magnitude of the interests entrusted by the Government to the Board.

The total capital cost of the Metropolitan Water Supply and Sewerage Works stood, at 30th June, 1897, at £6,262,670. In addition to the head works and trunk mains, the Board has under its jurisdiction $946\frac{3}{4}$ miles of reticulation mains, supplying water to a population numbering some 418,000; 256 miles of sewers, and $18\frac{1}{2}$ miles of stormwater drains. The extensions carried out by the Board during the year comprised $55\frac{1}{2}$ miles of new water mains, and $25\frac{1}{2}$ miles of sewers, while existing works received every care and attention, and are reported as being maintained in a thoroughly efficient condition.

In the Appendix will be found a brief report from the President of the Hunter District Water and Sewerage Board of its operations during the year. New water-mains to the extent of 6 miles 517 yards were laid down by the Board, bringing the total length of reticulation mains up to 134 miles 1,088 yards, the estimated population supplied with water being 34,655. The Board also carried out some important improvements and additions to the machinery and buildings at Walka Pumping Station, and these, it is anticipated, will enable the Board to meet the increasing consumption of water. The whole of the works were maintained in good order throughout the year.

GENERAL.

In conclusion I desire to bear testimony to the zeal and efficiency which have been displayed by the staff in every branch, and to express my obligation to all the officers for their willing co-operation in dealing with the diversified and complicated business of this large Department.

ROBT. HICKSON, M. INST. C.E.,

Under Secretary for Public Works and Commissioner for Roads.

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Railways and Tramways.

(I.)

Report of the Engineer-in-Chief for Railway Construction.

Department of Public Works, Railway Construction Branch,
Sydney, 8 October, 1897.

I HAVE the honor to make the following report on the work carried out in the Railway Construction Branch during the year ending 30th June, 1897 :—

RAILWAY SURVEYS.

The following work was carried out by the Railway Survey Staff, between the 1st July, 1896, and 30th June, 1897.

Explorations over projected railway routes have been made, and reports furnished thereon, as under :—

Armidale to Trial Bay.
Armidale to Macleay River Heads, *via* Taylor's South Arm.
Bogan Gate to Trundle and Bullock Creek.
Condobolin to Cudgellico.
Glen Innes to South Grafton, *via* The Henry, the Little, and Nymboi River.
Hillston to Mossgiel.
Koorawatha to Grenfell and Wyalong.
Narrandera to Colinroobie and Barrellan.
Tenterfield to Casino, *via* Acacia Creek and Richmond River Valley.

During the year ten trial and seven permanent surveys were completed. Four trial surveys and one permanent survey were in hand, but not finished at the close of the year. Particulars in detail are shown in the Table below.

In order to comply with the instructions of the Minister and the requirements of Parliament, plans and sections of the following lines have been under review, and in many cases entirely new estimates prepared, others being revised where found desirable :—

Belmore to Liverpool.
Belmore to Cabramatta.
Braemar to Mittagong.
Byrock to Brewarrina.
Casino to Lismore.
Colo Vale to Braemar.
Coolamon to Arianah.
Condobolin to Euabalong.
Condobolin to Cudgellico.
Dubbo to Coonamble.
Galong to Burrowa.
Glen Innes to South Grafton.
Grong Grong to Arianah.
Guyra to South Grafton.
Hill Top to Colo Vale.
Mount Kembla Coal Company's Railway, in connection with the proposed Port Kembla Harbour Scheme.
Moree to Inverell.
Mudgee to Coonamble.
Narrabri to Pilliga.
Necropolis Railway, Loop at Rookwood Station.
Pearce's Creek to Ballina.
Singleton to Jerry's Plains.
Tenterfield to Casino.
The Rock to Green's Gunyah.
Warren to Coonamble.
Wollongong to Port Kembla.
Woolabra to Collarenebri.

The proposed railways, Berrigan to Finley and Moree to Inverell, have been under consideration by the Public Works Committee; a large number of wall maps, plans, books of reference, sections and compilations of lithographs have been furnished for their use. Similar information was supplied to the Royal Commission on the projected Railway Extension into the City of Sydney. Plans, &c., have been partly prepared in connection with the following railway proposals, which have since been referred to the Public Works Committee :—

Byrock to Brewarrina.
Condobolin to Euabalong.
Coolamon to Arianah.
Narrabri to Pilliga.
The Rock to Green's Gunyah (now Lockhart).

In

In anticipation of reference to the same Committee, some drafting work has been done in regard to the following lines:—

Gundagai to Tumut.
Rosehill to Dural.
Singleton to Jerry's Plains.
Warren to Coonamble.

The following drawings in connection with the undermentioned authorised lines have been prepared, viz.:—Working plans and sections, proclaimed plans, police district plans and notice tracings, as well as heliographic copies of latter, to accompany notifications of resumptions of land for railway purposes. The photo-lithographic copies of the working plans and sections of the greater number of these lines have been completed:—

Berrigan to Finley.
Braemar to Mittagong.
Colo Vale to Braemar.
Hill Top to Colo Vale.
Darling Island Connection.
Nevertire to Warren.
Tamworth to Manilla.

The usual quantity of work, which is always very large, has been done in calculating the bearings and distances for descriptive purposes of the boundaries of land resumptions and connections to same, many of the former being very irregular.

The customary amount of office work, including plans, &c., for the use of the Railway Commissioners, when reporting on proposed lines, deciding on station sites, &c., for the use of the Minister when replying to deputations and Parliamentary questions, and inquiries from the Lands and other Departments, has been carried out.

The office staff has been during the time under review barely sufficient for the current drafting and clerical work, and, consequently, the arrears of drafting work have been very slightly diminished.

The staff employed in connection with the Railway Surveys consisted on an average of 30 officers, divided as follows:—1 Supervising Engineer, 14 surveyors, and 15 draftsmen.

The following tables show the trial and permanent field operations carried out during the year:—

SUMMARY OF TRIAL SURVEYS.

Preliminary Exploration.	Preliminary Traverse.	Preliminary Levels.	Staking.	Levels.	Check Levels.	Cross Levels.	Details.
m.	m. c.	m. c.	m. c.	m. c.	m. c.	m. c.	m. c.
1783	781 37	572 64	580 44	389 47	177 0	538 56	322 0

SUMMARY OF PERMANENT SURVEYS.

Staking.	Levels.	Check Levels.	Cross Levels.	Details.
m. c.	m. c.	m. c.	m. c.	m. c.
90 10	69 35	70 35	29 56	143 18

DETAILS OF TRIAL SURVEYS.

Title of Line.	Total Length.	Date of Commencement.	Date of Completion.	No. of Surveyors.	Length Surveyed during year.	Total length Completed.	Remarks.
	m. c.				m. c.	m. c.	
Belmore to Liverpool	9 60	11 Aug., 1896	24 Oct., 1896	1	9 60	9 60	
Belmore to Cabramatta	4 36	26 Oct., 1896	15 Jan., 1897	1	4 36	4 36	
Condobolin to Broken Hill, <i>via</i> Mossiel.	366 40	3 Mar., 1896	16 Nov., 1896	5	225 40	366 40	
Coolamon to Arianah	41 63	11 May, 1896	30 Sept., 1896	1	32 23	41 63	
Galong to Burrowa	17 64	15 Oct., 1896	15 Feb., 1897	1	17 64	17 64	
Glen Innes to South Grafton, <i>via</i> the Henry, the Little, and Nymboi Rivers.	76 0	21 Aug., 1896	.....	2	70 0	70 0	Total length of line approximately, 126 miles 40 chains.
Grong Grong to Arianah	32 25	14 July, 1896	20 Oct., 1896	1	32 25	32 25	
Koorawatha to Grenfell and Wyalong.	150 0	1 Feb., 1897	.....	2	61 40	61 40	Includes alternative line <i>via</i> Bimbi, approximately 60 miles.
Liverpool to Mulgoa	34 0	1 Nov., 1896	.....	1	19 47	19 47	Includes alternative line <i>via</i> Cecil-park, approximately 9 miles.
Moree to Inverell—Alternative line, south of the Gwydir River and <i>via</i> Ezzy's Crossing.	44 65	23 Mar., 1896	14 Aug., 1896	2	17 65	44 65	Total length of line, 96 miles and 35 chains.
Rosehill to Dural	9 6	14 June, 1897	.....	3	6 60	6 60	
Singleton to Jerry's Plains	22 76	1 May, 1896	5 Oct., 1896	1	12 76	22 76	
Wollongong to Port Kembla	0 77	4 Jan., 1897	6 Jan., 1897	1	0 77	0 77	
Woolabra to Collarenebri	80 56	16 May, 1896	6 Mar., 1897	2	64 16	80 56	
Total	891 8	.....	.....	...	575 69	779 69	

DETAILS OF PERMANENT SURVEYS.

Title of Line.	Total Length.	Date of Commencement.	Date of Completion.	No. of Surveyors.	Length Surveyed during the year.	Total Length Completed.	Remarks.
	m. c.				m. c.	m. c.	
Berrigan to Finley	13 71	27 Nov., 1896	16 Feb., 1897	1	13 71	13 71	
Braemar to Mittagong	1 72	12 June, 1896	9 Sep., 1896	1	1 72	1 72	
Colo Vale to Braemar ..	1 76	17 June, 1896	29 Aug., 1896	1	1 76	1 76	
Darling Island—Connection with	1 0	24 Nov., 1896	8 Jan., 1897	1	1 0	1 0	Includes alternative line 49 chains in length.
Hill Top to Colo Vale	3 38	6 July, 1896	30 July, 1896	1	3 38	3 38	
Kiama to Nowra	30 53	26 Oct., 1896	28 Nov., 1896	1	30 53	30 53	} Defining boundaries of portions and railway resumptions from Berry Estate.
Do	34 49	5 Mar., 1897	12 May, 1897	1	34 49	34 49	
Moree to Inverell	96 35	2 June, 1897	.....	4	14 0	14 0	Mileage, approximate only.
Nevetire to Warren	12 33	10 July, 1896	2 Oct., 1896	1	12 33	12 33	
Tamworth to Manilla	29 45	1 Dec., 1896	10 Apl., 1897	2	29 45	29 45	
Total	225 72				143 37	143 37	

RAILWAY CONSTRUCTION.

The following works have been in progress during the year ended 30th June, 1897:—

Narrabri to Moree Railway.

This line is an extension of the north-west branch of the Great Northern Railway from Narrabri in a northerly direction to Moree. The extension commences at Narrabri West Station, crosses the Namoi River and Narrabri Creek on timber bridges, and skirts the northern side of the town of Narrabri, a new station being located at 2 miles 25 chains from the commencement of the extension. The line terminates at Alice-street, Moree, 315 miles 15½ chains from Newcastle.

The length of this extension is 63 miles 72 chains 20 links.

The principal contract was let to Messrs. Smith, Finlayson, and Timms, on 10th July, 1895, the time given for completion was eighteen months, but the opening for traffic did not take place until 1st April, 1897.

The works have all been designed and carried out in the most economical manner. The bridge over the Namoi River comprises three timber trussed spans of 60 feet, with fifty-two additional timber flood-openings of 14 feet each in the approaches. The Narrabri Creek bridge has one span of 60 feet, with twenty-three additional flood-openings of 24 feet span and twenty-seven of 14 feet span each. The piers of both bridges are of timber piles.

The permanent-way of the main line is laid with 60-lb. steel flat-bottomed rails spiked to ironbark sleepers. In the sidings old iron rails have been used. All the sleepers for this line were supplied and delivered at Narrabri before the works were commenced, under contract with the Sleeper-getters' Association.

Fencing has for the most part been dispensed with, being used only in the immediate neighbourhood of the stations.

Straying and trespass by stock is controlled by cattle-stops at intersections of roads and boundary lines of fencing.

The level crossings have no gates, but are provided with warning-boards.

The formation of the line is taken as near as possible to the surface in most places, giving a few inches only of embankment, but there are lengths aggregating about 5 miles where the undulations of the surface are too great for the adoption of this method, and the line is carried through a succession of low cuttings and banks.

Station and siding accommodation have been provided at Narrabri North, Edgeroi, Woolabra, Gurley, Tycannah and Moree. Trucking-yards have been provided at Edgeroi, Woolabra and Moree.

Water supply has been obtained from the artesian bores at Woolabra and Moree, which automatically fill the 10,000-gallon wrought-iron tanks that have been erected on brick towers at these places, but the artesian water, which contains from 30 to 40 grains per gallon of sodium carbonate, is not satisfactory, as it causes priming.

The works have been carried out in six contracts.

The expenditure in connection with this line has been as follows:—

Construction of line, including earthworks, bridges, and culverts, permanent-way, and Station Yards	...	£126,064	1	3
Water Supply at Woolabra and Moree	...	925	3	6
Station Buildings and Station Appliances...	...	3,644	7	1
Trucking Yards	...	1,036	14	10
Land Resumption	...	180	2	9
Total cost to date	...	£131,850	9	5

Parkes to Condobolin Railway.

The first section, from Parkes to Bogan Gate, was opened for traffic, 15th December, 1896. The second section, from Bogan Gate to Condobolin, is under construction.

The line passes through country in which the average annual rainfall is about 22 inches. The surface is for the most part flat, and the undulations of the ground are of such a character as to admit of a ruling gradient of 1 in 100 throughout.

The works are of an inexpensive character, and the formation has been kept as near the surface of the ground as possible.

There are no works of any magnitude on the line, the principal difficulty met with having been in the provision of a supply of water for the locomotives.

The permanent-way has been laid with 60-lb. flat-bottomed steel rails, spiked to ironbark sleepers, which were provided by the contractor for the construction of the line. In the sidings old iron rails have been used.

Fencing has been erected only in the immediate neighbourhood of stations. Cattle-stops have been placed at intersections of roads and boundary fences to prevent straying and trespass by stock.

The level crossings have no gates, but are provided with warning-boards.

The first section—Parkes to Bogan Gate—has a length of 23 miles 38 chains.

The contract for its construction was let to Messrs. Smith, Finlayson and Timms on 18th February, 1896, for completion within nine months, or by 18th November, 1896, but it was not opened for traffic until the 15th December, 1896.

Station and siding accommodation have been provided at four points, viz., at Brolgan, Nelungaloo, Gunningbland and Bogan Gate.

Trucking-yards for sheep have been erected at Bogan Gate.

The works were carried out in two contracts, viz., one for the construction of the line, and one for the Station Buildings.

The following is the expenditure to date:—

Construction of the line	...	...	...	...	£49,113 14 6
Station Buildings	...	...	...	...	979 9 1
Land Resumption	...	...	...	...	2 10 4
Total cost	...	...	...	...	£50,395 13 11

The second section—Bogan Gate to Condobolin—has a length of 39 miles 22½ chains.

The contract for its construction was let to Mr. John Falkingham, on 20th July, 1896, for completion within fourteen months, or by the 20th September, 1897, but the opening for traffic will probably be delayed till a few weeks later.

The terminal point at Condobolin will be 329 miles 62½ chains from Sydney.

Station and siding accommodation are being provided at three points, viz.:—At Burrawang, Derriwong and Condobolin.

Trucking-yards for stock are being built at Burrawang and at Condobolin.

On this length provision is being made for a supply of water at two points, viz.:—At Gunningbland Creek—one of the few suitable places for such work—at a point 27½ miles from Parkes, and 35½ miles from Condobolin. A tank has been excavated near the creek which will contain a supply of 2,800,000 gallons of water when full—sufficient for a two years' supply. A pumping plant and a 20,000-gallon wrought-iron tank, supported on a brick tower, will also be provided.

At Condobolin it is proposed to obtain water from the town supply, arrangements for the carrying out of which have been made. A brick tower supporting a 20,000-gallon wrought-iron tank will be erected on the station ground.

The following are the contracts that have been let for construction of works on this length:—

Contract No. and Work.	Contractor.	Amount of Contract.	Expenditure to Date.
		£ s. d.	£ s. d.
No. 2.—Construction of line	J. Falkingham	33,819 16 1	25,171 18 2
No. 5.—Excavation of tank	Thomas Lees	1,066 11 8	637 6 9
No. 6.—Brick tower, Gunningbland Creek	C. Baker	205 0 0	206 3 3
No. 7.—Wrought-iron tank, Gunningbland Creek	G. Norman	230 0 0	.....
No. 9.—Station buildings	J. Allibone	3,276 0 0	250 0 0
No. 10.—Brick tower, Condobolin	C. W. Muller	136 10 0	37 18 0
No. 11.—Wrought-iron tank, Condobolin	G. Norman	270 0 0	.....

The total expenditure on this section to date has been £54,337 12s. 4d.

Jerilderie to Berrigan Railway.

This line is an extension of the Narrandera-Jerilderie branch of the South-Western Railway. A description was given in last year's report.

A triangle has been laid down at Berrigan for turning locomotives, instead of a turntable.

Water for locomotives is obtained from the existing supply at Jerilderie.

A contract was let to Messrs. Smith, Finlayson, and Timms, on 25th January, 1896, for the construction of the line; the time for completion was six months, but considerable delay occurred in carrying out the works, and the opening for traffic did not take place until 14th November, 1896. Length of the line, 21 miles 65 chains.

The total cost to date is as follows:—

Construction of line	...	...	...	...	£37,420 2 6
Station buildings and trucking yards	...	...	...	...	1,138 7 8
Land and compensation	...	...	...	...	222 11 10
Total	...	...	...	...	£38,781 2 0

Berrigan

Berrigan to Finley Railway.

This is an extension in a westerly direction of the Berrigan Railway; it has been authorised by Act of Parliament, and a sum of £27,250 has been voted for its construction.

Plans have been prepared and arrangements are being made for putting the works in hand as soon as the conditions as to transfer of the land required by the Act—which is to be without cost to the Government, except in the case of town allotments—have been complied with by the persons interested.

The length of the extension will be 13 miles 62 chains.

The terminal point at Finley will be 417 miles 69½ chains from Sydney.

Finley is situated on the travelling stock route between Jerilderie and Tocumwal, and is surrounded by a tract of country very suitable for cereals, so that the traffic is expected to be of importance.

Station and siding accommodation is proposed for three points on the line, including the terminal station at Finley.

Contracts have been let for the supply of about 40,000 sleepers of ironbark and redgum.

The permanent-way will be laid with 60-lb. steel rails, spiked to the sleepers.

Nevertire to Warren Railway.

This branch line leaves the Great Western Railway at 341 miles 20 chains and terminates at 353 miles 51 chains from Sydney, a length of 12 miles 31 chains.

The direction of the line from Nevertire is north-easterly, and it chiefly follows the Warren road.

A very large traffic is anticipated from and to the extensive country on the north-east. The construction of this line was strongly advocated by the Railway Commissioners.

The works are being carried out by day labour, under the supervision of an officer of this Branch.

The sleepers have been provided partly under a contract with Mr. Thomas Border, of Dubbo, and partly by purchase from the Railway Commissioners.

The works are of a light and inexpensive character, as the country is level, but, as after heavy rains water lies over the greater part of the surface, the formation has been raised higher than is the practice with the other country lines of the same class. There are but two timber bridges of any magnitude on the line, viz., those over Beleringar and Gunningbar Creeks.

The permanent-way is to be laid with 60-lb. flat-bottomed rails, spiked to ironbark sleepers. Old iron rails will be used in the sidings.

Fencing will not be used except in the immediate neighbourhood of stations.

To prevent straying and trespass of stock cattle-stops will be provided at the intersection of boundary fences.

Water for locomotives will be provided at Warren by pumping from the Gunningbar Creek, where permanent water exists. A line of pipes will be laid from the creek to Warren Station, a distance of 40 chains, and a brick tower, carrying a 20,000-gallon tank, will be erected in the yard.

Station accommodation will be provided at Warren only, and, as this may not remain a terminal station for any great length of time, a triangle for turning the engines will be laid down instead of a turntable.

The estimated cost of this extension is £32,730.

The total expenditure charged to date has been £3,180 16s. 10d.

It is anticipated that the line will be completed and opened for traffic about Christmas.

Tamworth to Manilla Railway.

The construction of this line, which branches off the Great Northern Line at West Tamworth, has been authorised by Parliament, and working drawings are in course of preparation.

The country traversed is of undulating character, and the Peel River is crossed at 12 miles 73 chains from the junction with the main line.

The length of the line will be 29 miles 45 chains, and the estimated cost is £73,170.

The works on the line will be of a light character, as the surface of the ground will be followed as nearly as the exigencies of the grade and other circumstances will admit.

The most important work on the line will be the Peel River Bridge, which will consist of steel girders in three spans of 66 feet each, supported on concrete piers, in addition to which there will be seven timber spans of 24 feet each in the approaches.

Station and siding accommodation will be provided at four points on the line, including the terminal station at Manilla.

The permanent-way will be laid with 60-lb. steel flat-bottomed rails spiked to ironbark sleepers.

The line will, for the greater part of its length, remain unfenced.

It is anticipated that the works will be completed in about eighteen months from the date of their commencement.

Railway connection with Darling Island.

As it has been decided to utilise the large valuable water frontage of Darling Island, steps have been taken to extend the Darling Harbour line in that direction.

A contract was let to Messrs. Bromley and Holloway on 29th May, 1897, amounting to £4,348 5s., for the construction of the first portion of this extension which commences at a point 1 mile 17 chains 9 links from Redfern tunnel, and is 21 chains in length.

This contract provides for excavation and formation of a double line as far as Edward-street, for a permanent steel bridge with concrete jack arches to carry Union-street over the railway the full width of the street, and for a timber bridge of a temporary character to provide for the traffic along Murray-street.

The time provided in the contract for completion of these works is twenty-six weeks.

The works are now in progress.

Extension of Rookwood Cemetery Branch.

This is an extension of the branch line for about 68 chains beyond the original receiving-house, and it has been constructed in compliance with the wishes of the Trustees.

The end of the original receiving-house has been altered to allow of the line being extended beyond it, and the platform accommodation has been considerably added to.

A second receiving-house and platform have been built at the far end of the extension.

The general work has been carried out by day labour, but the buildings by contract.

The full cost of the works has been:—

Works carried out by day work	...	...	...	£4,810	0	9
Works carried out by day contract	...	...	...	1,752	19	9
Total cost	...	...	...	£6,563	0	6

The sum voted for this work was £6,700. The balance remaining after completion of the works, viz., £136 19s. 6d., will be utilised for the purpose of improving the water supply.

The works were completed and handed over to the Railway Commissioners on 20th February, 1897.

Water Supply at Mowra, on the Orange to Forbes Railway.

This work was decided on, as was pointed out in last year's report, to supplement the supply of water for locomotive purposes, as the town supply at Parkes had proved unreliable.

The works comprised the excavation of a tank and the formation of a dam, which will impound, when full, 893,000 gallons of water; also a brick tower carrying a wrought-iron tank of 20,000-gallons capacity.

The pumping plant has been provided and fixed complete by the Railway Commissioners.

The works (excepting the pumping plant) were carried out in three contracts, particulars of which are given below:—

No. 1.—Excavation of tank	...	...	...	£236	1	4
No. 2.—Wrought iron tank	...	...	...	278	0	0
No. 3.—Brick tower	...	...	...	77	0	0

The total cost, as charged to date, has been £645 12s.

Considerable delay took place before this supply could be made use of by locomotives, as the weather continued dry during the whole summer; they were, however, practically completed by August of 1896.

Proposed Railway Extension into the City of Sydney.

The plans and estimates for the proposed extension of the railway from Redfern to Park-street, as recommended by the Railway Commissioners, and urged in their letter dated 28th April, 1896, were prepared and submitted to a Royal Commission appointed on 22nd December, 1896, to inquire into and report on the whole subject.

The Royal Commission commenced their duties on the 16th February, and made their report on 1st June, 1897, recommending the adoption of a modification of the Railway Commissioners' scheme, by which the Railway would be extended to St. James' Road.

This proposal has been submitted to the Parliamentary Standing Committee on Public Works for report, and is very shortly to be dealt with by that body.

Manufacture and Supply of 250 tons of Iron Spikes for 60 lb. Rails.

A contract was let to Mr. William Sandford, of the Eskbank Ironworks, on 9th January, 1897, for the manufacture and supply of 250 tons of iron spikes for 60 lb. rails to meet the requirements of lines in progress, and for others authorised.

The contract rate is £12 9s. per ton; the full supply to be completed in sixty-six weeks.

Manufacture and Supply of 12 Jib Water Cranes.

A contract has been let for the manufacture and supply of twelve Jib Water Cranes, to meet the requirements of lines in progress, and for stock.

The contract was let to Messrs. Pope, Maher, & Co. on 25th May, 1897, for completion in thirteen weeks, for the sum of £636.

Tenders for Permanent-way Material.

In August, 1896, an advertisement appeared in the *Government Gazette* inviting tenders for the manufacture within the Colony of 150,000 tons of steel rails. The tenders to be received by the Secretary for Public Works in Sydney, and the Agent-General for New South Wales in London, on 30th December, 1896.

No satisfactory tender was received.

Staff.

The field staff employed in the supervision of the above works during the year under review has consisted of the following:—Three supervising engineers, four field assistants, two cadets.

For the construction of the Rookwood Extension the services of the Supervising Engineer of the Railway Survey Branch were utilised.

One engineer has been employed during the whole of the year on the case of *M'Sharry v. the Railway Commissioners*, now under arbitration.

Inspectors and sub-inspectors for the various classes of work carried out have been employed as required during the progress of the work.

The office staff has consisted of one Supervising Engineer, one Chief Draftsman, and ten Draftsmen.

TRAMWAYS.

TRAMWAYS.

Works in connection with the following are in progress:—

	Miles.	Chains.	
Willoughby Electric Tramway	2	45	Single track.
George-street and Harris-street Electric Tramway ...	3	20	Double track.
Rose Bay Electric Tramway	1	23	Single track.

Trial surveys with report and estimate have been made of the following tramway proposals:—

	Miles.	Chains.	
Tighe's Hill to Waratah... ..	1	5	Single track.
Extension to St. Leonards Railway Station ...	0	50	Single track.
Ocean-street Cable—Extension to Double Bay ...	0	52	Double track.
Newcastle to Cockle Creek, and Lake Macquarie ...	6	40	Single track.
Bridge-street to Circular Quay	0	37	Single track.

Willoughby Electric Tramway.

The construction of this tramway was authorised in December, 1896. The starting point is the terminus of the existing cable tramway in Falcon-street, thence the line runs along the North Sydney Road, Mowbray-road, and Penshurst-street to the intersection of Victoria-avenue, Chatswood, a distance of 2 miles 45 chains from the point of commencement.

This being an electric tramway it has been decided to substitute electric traction for cable on the cable tramway between the power-house and the terminus in Falcon-street, a distance of 60 chains.

An additional generator for the Willoughby tramway, together with the necessary driving gear, is being erected in the power-house at Ridge-street, and will be driven by belts off the main cable engines.

The overhead construction will be similar to that used on the Mosman's Bay Electric Tramway; an accumulator house will be erected on a Government Reserve at Park-street, Willoughby, and will contain 215 cells and a motor-booster. The estimated cost of this tramway is £16,978.

Owing to the additional rolling stock required for this tramway, it became necessary to increase the accommodation in the car-house at Ridge-street. The necessary alterations are being carried out by day-labour, the switches and crossings for the entrance being manufactured at Cockatoo Island. The estimated cost of the alterations to the car-house and necessary track work is £2,600.

The following list shows the number and particulars of contracts in connection with the construction of this tramway:—

- Contract No. 1.—Plastic bond contract completed. Material at power-house, North Sydney.
- Contract No. 2.—Poles and brackets. Contract let, work in hand.
- Contract No. 3.—Generator, &c. Contract let, work in hand.
- Contract No. 4.—Accumulators. Contract let, work in hand.
- Contract No. 5.—Overhead wiring. Tenders under consideration.
- Contract No. 6.—Permanent-way, &c. Tenders invited—due 19th July, and since let to Mr. A. Johnston.
- Contract No. 7.—Motor-booster and switchboard. Tenders recommended for acceptance.

George-street and Harris-street Electric Tramway.

The construction of this tramway was sanctioned by Act of Parliament assented to 14th September, 1896.

The tramway commences at the eastern side of the Circular Quay and following the curvature of the Quay passes the wharves of the various ferry companies; thence by way of Queen's wharf to George-street, and along that street to its junction with the existing tramway opposite the Benevolent Asylum, running parallel with the existing steam lines to a point opposite Terminus-street; following the existing steam lines for a few chains it branches off at Harris-street, on which street the line will run until John-street is reached, where it terminates. A junction is provided for with the existing steam tramways running to the Redfern Railway Station. The distance from Circular Quay to John-street is 3 miles 20 chains, and is double track all the way—the length of single track, including cross-over roads and junctions, to be constructed being about 7 miles. Estimated cost, £130,500.

The following list shows the number and particulars of contracts in connection with the construction of this tramway:—

- Contract No. 1.—Plastic bond. Contract completed; material in Government store.
- Contract No. 2.—Mannesman Poles. Tender accepted; poles should be here in about six weeks.
- Contract No. 3.—Steam engines and generators. Tender accepted.
- Contract No. 4.—Permanent-way, George-street } Specification practically completed; tenders to be
- Contract No. 5.—Permanent-way, Harris-street } invited shortly.
- Contract No. 6.—Points and crossings. Under consideration.
- Contract No. 7.—Boilers. Tenders close on 12th July. Since let to Messrs. G. and C. Hoskins.
- Contract No. 8.—Boiler settings and mountings. Not yet decided.
- Contract No. 9.—Switchboard, station wiring and lighting. Under consideration.
- Contract No. 10.—Accumulators. Under consideration.
- Contract No. 11.—Overhead wiring. Plans now ready.
- Contract No. 12.—Power-house. Under consideration.
- Contract No. 13.—Brackets and poles, mountings. Drawings being prepared.
- Contract No. 14.—Car-house. Sketch plan approved by Railway Commissioners.
- Contract No. 15.—Travelling Cranes. Drawing in hand.
- Contract No. 16.—Feeder cables and junction boxes. Tenders invited.
- Contract No. 17.—Circulating and feed pumps, piping, &c. Not yet decided.
- Contract No. 18.—Sea-water supply for condensers. Under consideration.

Of the contracts let up to date, the most important is that for the Steam engines and Generators' contract, No. 3, for which Messrs. H. H. Kingsbury and Co.'s tender has been accepted. Now that this tender has been accepted the contracts for buildings will be pushed on, the sketch plans for the arrangement of power-house and offices being well advanced. The contracts let for boilers, engines, and generators include provision for future conversion to electric traction of existing tramways. The Mannesman poles, which it has been decided to use for carrying the overhead work, will be ornamented in neat design of wrought and cast iron work. The steam-boilers, for which tenders have been invited, are of the same type as those in use at Rushcutters' Bay, which have proved to be so satisfactory in working and economical in consumption of fuel. Land has been resumed between Mary Ann Street and William Henry Street, Ultimo, for the erection of the power-house and car-house required for not only the George and Harris Streets Tramway, but also for the conversion of the whole existing system.

Rose Bay Electric Tramway.

The construction of this tramway was authorised during January, 1897, the point of commencement being the terminus of the King-street to Ocean-street cable tramway at Ocean-street, thence along the New South Head Road to Rose Bay, a distance of 1 mile 23 chains single track. The generators, of which there are two, together with the necessary driving gear, will be placed in the cable tramway power-house at Rushcutters' Bay, being driven by belts off the main cable engines, the current being carried by armoured cables to the terminus of the cable tramway.

Provision has also been made for working the pumps in connection with the Double Bay sewerage pumping station, the current being carried by an overhead wire attached to the bracket poles from the feeder-pillar at the Ocean-street terminus.

The overhead construction will be similar to that intended to be used for the George-street and Harris-street electric tramway, the poles, however, being of wood similar to those used for the Mosman's Bay and Willoughby electric tramways.

The following list shows the number and particulars of contracts in connection with the construction of this tramway :—

Contract No.	1.	Plastic bond.	Material ordered.
"	2.	Generators.	Delivered at power-house.
"	3.	Driving gear.	Now being manufactured at Hudson's Bros.
"	4.	Accumulators.	Tender accepted.
"	5.	Overhead wiring.	Drawing prepared.
"	6.	Poles and brackets.	Tender accepted.
"	7.	Permanent-way.	Survey in hand.
"	8.	Switchboard and connections.	Tenders under consideration.
"	9.	Accumulator-room and benches.	Tenders invited.
"	10.	Feeder cables and junction-boxes.	

Office Staff.

The staff employed during the year under review on tramway construction, inclusive of the office work, comprised one assistant engineer, one surveyor, one engineering assistant, and three draftsmen. Arrangements are being made for increasing the staff, which is at present very insufficient, to cope with the work.

H. DEANE,
Engineer-in-Chief for Railway Construction.

(II.)

RETURN of Expenditure on Public Works carried on by Railway Construction Branch from 1st July, 1896, to 30th June, 1897.

Work, and where situated.	When commenced.	If finished, actual amount of expenditure.	If unfinished, amount of expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
		£ s. d.	£ s. d.	£ s. d.
Berrigan to Jerilderie	1895	.....	39,049 9 6	18,411 14 1
Berrigan to Finley	1897	.....	614 5 9	614 5 9
Cootamundra to Gundagai	1881	.....	257,912 19 0	17,475 8 0
Cootamundra to Temora	1890	166,558 10 9	.....	1 12 5
Culcairn to Corowa	1890	140,270 15 0	.....	31 5 6
City Extension	1883	.....	4,872 8 10	996 2 0
Goulburn to Crookwell	1883	.....	6,828 1 10	Nil
Gundagai to Tumut	1883	.....	36,848 11 2	4 14 10
Goulburn to Cooma	1881	1,374,610 14 8	.....	Nil
Goulburn to Wagga	1879	99,573 1 4	.....	Nil
Galong to Burrowa	1884	.....	400 12 8	400 12 8
Homebush to Waratah	1881	2,145,454 18 10	.....	207 15 7
Inverell to Glen Innes	1883	.....	12,070 3 3	115 6 3
Kiama to Nowra	1883	361,371 10 9	.....	407 7 7
Land Claims, Old Lines	1896	.....	31 5 0	31 5 0
Lismore to The Tweed	1883	901,964 2 11	.....	1,225 10 10
Land Resumptions	1896	.....	3,768 9 7	3,768 9 7
Marrickville to Burwood Road	1890	182,676 17 2	.....	4,084 9 7
Molong to Parkes and Forbes	1883	382,037 8 10	.....	819 13 11
Murrumburrah to Blayney	1881	1,043,960 10 5	.....	Nil
Nevetire to Warren	1897	.....	.....	2,347 10 7
Narrabri to Moree	1883	.....	121,130 14 3	29,073 1 1
Nyngan to Cobar	1883	296,273 1 2	.....	Nil
Orange to Dubbo	1880	26,429 1 1	.....	Nil
Parkes to Condobolin	1895	.....	9,777 2 6	72,639 7 5
Rookwood Cemetery Extension	1895	.....	6,693 9 0	4,626 1 8
Sydney to Wollongong and Kiama	1881	.....	1,048,899 8 8	117 11 10
South Grafton to Glen Innes	1883	.....	10,809 15 11	1,252 3 0
St. Leonards to Milson's Point	1890	.....	330,308 7 7	2,976 7 7
Tamworth to Tenterfield	1886	232,888 1 5	.....	1 4 4
Tamworth to Manilla	1897	.....	1,393 17 1	1,393 17 1
Tarago to Braidwood	1883	.....	3,365 8 10	Nil
Trial Surveys .....	.....	.....	.....	* 12,403 14 5
Wallerawang to Mudgee	1879	926,663 9 3	.....	Nil
Wagga to Tumberumba	1883	.....	5,353 6 2	Nil
Gratuities to Retrenched Officers .....	.....	.....	.....	62 7 10
Establishment Salaries .....	.....	.....	.....	1,454 1 1
Work done for other Departments .....	.....	.....	.....	8,423 13 5
Total	£	8,280,732 3 7	1,988,124 16 7	185,366 14 11

* See Statement attached.

SUMMARY.

	£ s. d.
Loans	175,426 12 7
Revenue	1,516 8 11
Services of other Departments	8,423 13 5
	£185,366 14 11

RETURN of Expenditure on Public Works carried on by Tramway Construction Branch from 1st July, 1896, to 30th June, 1897.

Work, and where situated.	Amount expended from 1 July, 1896, to 30 June, 1897.	Work, and where situated.	Amount expended from 1 July, 1896, to 30 June, 1897.
	£ s. d.		£ s. d.
Alterations and additions—Car-house, North Sydney	93 9 1	Military-road, Mossman's Bay	6,484 1 0
Bondi to the Beach	1 0 0	Newcastle, Tighe's Hill	1 9 0
Balmain-Forest Lodge	34 10 10	Rose Bay	2,216 0 8
Conversion Scheme	110 0 4	Willoughby Extension	919 7 8
George-street Electric	2,222 15 10	Services of other Departments	10 11 9
King-street to Ocean-street	27 5 2		
Military-road, North Sydney	19 10 0	Total	£ 12,140 1 4

SUMMARY.

	£ s. d.
Loans	12,129 9 7
Services other Departments	10 11 9
	£12,140 1 4

RETURN

RETURN of Public Works carried on by Railway Construction Branch from 1st July, 1896, to 30th June, 1897.

TRIAL SURVEYS.

Work.	Amount expended from 1 July, 1896, to 30 June, 1897.	Work.	Amount expended from 1 July, 1896, to 30 June, 1897.
	£ s. d.		£ s. d.
Armidale to the Coast	106 17 6	Inverell to Moree	805 17 11
Borings for proposed Bridge to North Sydney from Dawes Point.....	325 19 3	Koorawatha to Wyalong	926 12 3
Belmore to Liverpool	642 6 0	Liverpool to Mulgoa	750 14 7
Berrigan to Finley	56 2 4	Locksley Deviation	68 15 8
Bowral to Robertson.....	20 9 2	Mudgee to Gulgong	4 3 4
Barmedman to Hillston	3 0 0	Mudgee to Coonamble	19 11 2
Braemar to Mittagong	7 12 4	Moss Vale to Robertson.....	1 11 3
Bogan Gate to Bullock Wharf	3 5 0	Mudgee to Walgett.....	1 15 6
Byrock to Brewarrina	52 9 2	Miscellaneous	203 15 9
Coolamon to Arianh	617 11 5	Narrandera to Barellan (Explorations) ..	5 10 3
Cowra to Grenfell.....	37 0 6	Nevetire to Warren	833 6 3
Condobolin to Broken Hill	2,231 12 1	Narrabri to Pilliga	68 15 8
Cudgellico to Hillston	11 4 6	Pearce's Creek to Ballina	1 6 0
Condobolin to Cudgellico	38 14 0	Pieton to Mittagong	662 12 7
Condobolin to Euabalong.....	73 8 2	Rock to Brookong, at Green's Gunyah ...	80 12 9
Dargan's Creek Deviation.....	63 5 2	Rose Hill to Dural	76 17 10
Dubbo to Coonamble.....	10 5 4	Singleton to Jerry's Plains.....	622 11 4
Darling Island	611 2 8	Tamworth to Manilla	155 9 9
Dubbo to Parkes	1 6 0	Tenterfield to Casino	104 14 9
Grong Grong to Arianh	317 3 2	Temora to Hillston	11 1 0
Gulgong to Walgett	1 8 4	Warren to Coonamble	34 5 6
Guyra to South Grafton	101 18 0	Woolabra to Collarendabri.....	1,512 8 4
Gregora to Cudal.....	3 0 0	Wollongong to Port Kembla	52 8 11
Hill Top Deviation	1 16 0		
		£	12,403 14 5

TOTAL Expenditure on Railway and Tramway Construction.

Year.	Railways.	Tramways.	Year.	Railways.	Tramways.
	£ s. d.			£ s. d.	£ s. d.
1857-8	51,467 6 0	.....	1880	1,430,042 15 0	29,008 19 5
1859	73,659 7 11	.....	1881	1,652,978 16 6	108,026 14 8
1860	210,687 0 2	.....	1882	1,695,070 13 3	190,979 0 7
1861	250,017 12 7	.....	1883	2,111,057 9 2	200,835 18 7
1862	248,245 7 10	.....	1884	2,871,684 6 10	105,308 18 10
1863	311,787 8 5	.....	1885	2,489,776 12 7	64,657 17 6
1864	348,707 11 8	.....	1886	2,048,706 13 5	88,509 18 7
1865	356,234 7 11	.....	1887	1,275,118 15 11	49,509 4 11
1866	494,165 7 8	.....	1888	660,885 16 0	.....
1867	536,327 1 5	.....	1889	257,022 14 1	5,546 12 6
1868	538,480 16 5	.....	1890	151,788 11 10	25,453 14 5
1869	444,361 2 11	.....	1891	601,507 17 8	82,808 19 4
1870	436,756 12 11	.....	1892	970,030 10 0	83,260 11 5
1871	282,215 17 7	.....	1893	849,184 13 4	133,094 12 0
1872	134,014 8 3	.....	1st Jan., 1894, to 30th June, 1895.....	474,763 6 10	116,357 11 1
1873	81,063 6 8	.....	1st July, 1895, to 30th June, 1896.....	208,154 8 5	6,562 2 2
1874	348,180 18 4	.....	1st July, 1896, to 30th June, 1897.....	185,366 14 11	12,140 1 4
1875	471,895 4 10	.....			
1876	647,272 5 3	.....			
1877	589,439 19 1	.....			
1878	793,351 4 7	.....			
1879	946,380 2 6	15,227 10 8	Totals.....	£28,527,850 16 8	1,317,288 8 0

(III.)

Report of the Engineer-in-Chief for Public Works.

Sir,

Department of Public Works, Sydney, 22 October, 1897.

I forward herewith reports of the Principal Assistant Engineers and Superintendent of Dredges on the various works under control of this Branch of the Public Works Department for year ending 30th June, 1897.

The following are the heads of the reports which are attached:—

1. Harbours and Rivers Navigation.
2. Metropolitan Water Supply Construction.
3. Country Towns Water Supply.
4. Bridge Construction and Renewals.
5. Water Conservation and Irrigation.
6. Dredge Service.
7. Surveys, Soundings, and Borings.

Harbours and Rivers Navigation.

Mr. H. R. Carleton, Principal Assistant Engineer for Harbours and Rivers, in his report gives full particulars of the progress of the various works during the last twelve months.

Satisfactory progress has been made with most of the Harbour works; in some cases, as at the Clarence River and Newcastle, the works are more of a preparatory nature, so that there is not much to show for the year's operations. At the former entrance the south training wall was completed under contract, and it has proved most successful in fixing and maintaining a deep water entrance to the river. Such a thing as a steamer being bar bound at the Clarence River never occurs now,—indeed, the steamer can enter day and night at all states of the tide. Preparations were being made for starting the Goodwood Island training bank.

At Newcastle no actual progress was made with the breakwater, but the new quarry was being opened up, the various railways and tramways constructed for carrying stone to the breakwater, cranes and gantries erected for lifting the stone to and from punts, and special punts were being constructed for carrying the stone across the harbour. All these preparations being now in a forward state, the actual work of construction will be commenced immediately.

Authority has been given to commence the construction of a quay wall round Darling Island in Sydney Harbour, with monolithic blocks of concrete, instead of a timber wharf as has hitherto been our universal practice. The site is specially suitable for such a structure, as the bottom is all sound rock at a depth of about 28 feet from low water. The necessary plant is being prepared, and the actual work of constructing the 30-ton blocks has been commenced. A large punt to carry a 30-ton steam crane is being built at Cockatoo Island, so that it will not be long before block-setting can be commenced.

The total expenditure connected with Harbours and Rivers Navigation Works along the coast during the year was as follows:—

	£	s.	d.
1. Tweed River Improvements	6,151	0	3
2. Richmond River Improvements	26,137	5	8
3. Clarence River Improvements	13,839	17	8
4. Bellinger River Improvements	5,546	0	2
5. Nambucca River Improvements	3,214	14	0
6. Macleay River and Trial Bay	13,564	4	0
7. Manning River Improvements	10,812	18	1
8. Hunter River and Newcastle Harbour	40,486	6	8
9. Sydney Harbour	46,622	16	5
10. Reclamation Works, Cook's River and Shea's Creek	37,943	6	5
11. Darling River Improvements	642	12	9
12. Camden Haven Improvements	97	6	8
13. Miscellaneous Works at various Ports and Rivers, and for other Departments	87,668	12	5
	292,727	1	2
Expenditure on account of Dredge Service	79,255	15	0
Total expenditure on Harbours and Rivers	£371,982	16	2

The Government workshops at Fitzroy Dock were busily employed throughout the year at new work and repairs and alterations to dredge plant, steamers, harbour works plant, and sundry work for other Departments.

The most important work of alteration undertaken was the conversion of the tug "Ajax" into a suitable pilot steamer for Newcastle Harbour. This boat has been fitted with a hurricane deck throughout, the old main deck fitted up with cabins for the crew and pilots, electric light laid on all over the vessel, steam steering gear supplied, and the fittings generally made suitable for a first-class pilot boat.

The total expenditure at the Dock, most of which is for wages, amounted to £57,479 1s. 10d.

Metropolitan

Metropolitan Water Supply.

The Centennial Park Reservoir—a covered reservoir, designed to hold 20,000,000 gallons, in connection with the Metropolitan Water Supply—is in course of construction. The walls are nearly finished, and a commencement has been made with the groined coke-concrete roof, which is a special feature in the design of this reservoir. When all complete, the top surface will be grassed over to a nearly true level, affording an area of about $2\frac{1}{2}$ acres, which, being part of the City Park, can be used for tennis grounds or other such purposes.

Country Towns Water Supply.

Concrete storage reservoir dams were in course of construction at Armidale, Tamworth, and Parkes, all by day labour, this system being found cheaper and in every way more desirable than by contract for important works of this class. Surveys and plans were in progress for a number of other water supplies, all of which are detailed in Mr. Price's report.

The total expenditure on Water Supply Works during the year amounted to £54,353 13s. 9d.

Bridge Construction and Renewals.

Mr. E. M. de Burgh, Assistant Engineer for Bridge Construction, gives a full report on progress of bridge construction.

One hundred and twenty-four new bridges, with a total length of 13,483 feet, were completed and opened to traffic during the year, while contracts were still in progress for sixty-one others, with an aggregate length of 10,970 feet.

The principal bridges in course of construction were those over the Hunter River at Morpeth, Kangaroo Valley Suspension Bridge, Murray River at Albury, and timber approaches to Gundagai Bridge.

The total expenditure in bridge construction during the year amounted to £158,704 15s. 9d.

Water Conservation and Irrigation.

Mr. H. G. M'Kinney, Principal Assistant Engineer for Water Conservation and Irrigation, reports on works under his charge. Mr. M'Kinney's time has been fully occupied with Colonel Home, R.E., who had been appointed by the Government to examine and report on the various schemes that have been proposed from time to time, and to deal with the question generally. Pending completion of his report, no important work was undertaken, but the contracts in hand were completed.

The total expenditure connected with water conservation works for the year amounted to £32,647 9s. 3d.

Dredging Work.

Mr. A. B. Portus, Superintending Engineer of the Dredge Service, gives a complete report of the Dredging operations.

The sand-pump dredges, of which we now have fifteen at work, continue to give every satisfaction, as an economical and effective class of dredge for dealing with the sand which obstructs most of our harbour and river entrances.

An attempt was made during the year to make a cutting into the Macleay River from the sea where the new entrance is being formed, and the self-propelling sand-pump "Jupiter" was sent to undertake the work. Owing to a long continuance of very bad weather, during which time the dredge had to stand out to sea and ride out two heavy gales, the experiment was only partially successful. Some very useful work was, however, accomplished; but it demonstrated clearly that a dredge, to be suitable for work of this nature, must have wholly independent propelling and pumping engines, and must be a light draft handy vessel with twin screws. Such a vessel has been designed, and a contract entered into for its construction. Some of our ladder-dredges lay idle through the year, the sum available for dredging not being sufficient to keep all the plant at work; the most efficient portion was retained in commission.

Surveys, Soundings, and Borings.

Shortly after the beginning of the year under review the whole of the survey work of the Department, with the exception of the detail work of the Sewerage Construction Branch, was combined and placed under the control of Mr. G. H. Halligan as Chief Surveyor. The change has proved satisfactory, and full details of the surveys, &c., carried out during the year will be found in Mr. Halligan's report.

General.

The whole staff of officers employed under my direction worked most zealously and efficiently throughout the year; without their hearty co-operation the amount of work passed through this Branch could not have been accomplished.

I have, &c.,

C. W. DARLEY, M. Inst. C.E.,

Engineer-in-Chief for Public Works.

(IV.)

Report of the Principal Assistant Engineer for Harbours and Rivers.

I FORWARD herewith for the information of the Engineer-in-Chief for Public Works my report on the principal works carried out by this branch of the Works Department during the year 1st July, 1896, to 30th June, 1897, classified as follows:—

Works for the Improvement, Maintenance, and convenience of Navigation.
Miscellaneous Works.

North Coast District.

Tweed River.

Training-walls at Entrance.—The total length of these walls is now 28,700 feet with an output of 239,808 tons of stone, at a cost of £26,353, or 26·37d. per ton. The length constructed during the year was 2,760 feet, with 47,338 tons of stone costing £4,352, or 22·06d. per ton.

No. 5 Wall was extended 240 feet to 10,890 feet from Cave Point seawards, its total length, including portion above Cave Point, being 19,010 feet. The total stone used has been 180,154 tons, costing £19,007, or 25·32d. per ton. This has, therefore, taken 9·47 tons of stone and cost £1 per lineal foot.

No. 2 Wall.—This wall was extended 2,520 feet, a total length of 6,320 feet. The total stone used has been 36,097 tons, costing £4,545 or 30·23d. per ton. This wall has taken 5·71 tons of stone and cost 14s. 4½d. per lineal foot.

No. 3 Wall.—1,120 tons of stone was placed on this wall to make up for subsidence, but no additional length was built. The length of this wall is 3,370 feet, having taken 23,557 tons at a cost of £2,701, or 27·53d. per ton, or an average of 7 tons of stone at a cost of 16s. per lineal foot.

The s.s. "Chindera" was wrecked on the bar on 9th September. On 5th October the wreck was blown up with dynamite, only a small portion being left, and up to the present this has not proved an obstruction to navigation.

A small wharf was constructed at Boyd's Bay, six piles for mooring were driven at the Spit, near Government wharf, and sundry small repairs were done to Murwillumbah and Tumbulgum wharfs at a cost of £55.

Byron Bay.

A contract was let for repairs to jetty and fair progress has been made. £1,200 having been paid to date.

One of the mooring buoys having carried away it was replaced, and all anchors, chains, &c., were overhauled and put in good order.

Richmond River.

Northern Breakwater.—This breakwater has been extended 460 feet, being now 2,590 feet from high-water mark. The stone used was 48,983 tons, costing £8,997, or 44·08d. per ton.

Southern Breakwater.—This wall was extended 574 feet with 51,776 tons of stone, costing £8,899, or 41·25d. per ton. The total length is now 5,926 feet from high-water mark.

Riley's Hill Quarry.—100,759 tons of stone was quarried and loaded into punts, at a cost of £9,325, or 22·21d. per ton, for use on the above breakwaters.

North Creek Canal.—This canal was formally opened for traffic on July 20th, 1896. The grab dredge "Zeta" has been employed widening the waterway between the Tintenbar-road Bridge and North Creek, and has completed 2,740 feet from the bridge to a width of 66 feet.

Two New Punts for Harbour Works.—These punts, which are being constructed for conveying stone from the Riley's Hill Quarry to the breakwaters, are of wood, and are to carry 200 tons each. One is almost completed and the other should be in a month's time.

South-arm Improvements.—A ti-tri wall, composed of old rails driven 5 feet apart and interlaced with ti-tri, has been built on the left bank of the river, opposite Oakey Creek. The length completed is 360 feet. A small groin of ti-tri saplings driven close together has been put in on the right bank of the river at Oakey Creek, to direct the water from the creek down stream, and another of ti-tri and rails has been put in on the same bank about 100 yards higher up to direct the water on the first-mentioned wall.

At Iryington 235 feet of ti-tri and rails has been put in above the wharf, and a continuation of 565 feet on the same line is now being constructed below the wharf.

Snagging Richmond River and Tributaries.—Work has been done at the following places to the amount set opposite them:—

	£	s.	d.
South Arm...	1,737	13	6
North Arm	313	3	7
Leycester Creek	135	11	8
Wilson's Creek	330	6	5
Emigrant Creek	342	12	11
Teven Creek	311	7	6
Sandy Creek	43	2	3
Bungawalbyn Wharf	67	5	5
	£3,281	3	3

A jetty has been in course of construction at East Wardell and is now nearly completed.

Clarence

Clarence River District.

South Training-wall.—The contract for this wall was finally completed in November, 1896. There was, however, no advance made, as the stone was all used for strengthening the tip head, and other parts, where found necessary. The total length of wall is 12,177 feet, for which 330,768 tons of stone was used, costing, including staging, £69,852, or £5 14s. 9d. per lineal foot of wall. The result of this work has been very satisfactory, there being over 30 feet of water along a good portion of the wall, the bar carrying very seldom less than 12 feet at low water.

North Training-wall.—The work of removing the old wall to low water, and depositing the stone in the new wall, was again carried on by day labour, and a further quantity of 14,305 tons removed, extending the wall 60 feet, making the total length 2,607 feet, with 72,078 tons, costing 23·73d. per ton. The available stone was all used up in November, 1896.

Goodwood Island Training-wall.—The work of getting the plant, roads, &c., into proper order for carrying out this work, which it was decided should be done by day labour, was commenced in February. A new cutting into the quarry was made to improve the grade, locomotive shed removed, line at weighbridge lifted; wharf at Freeburn Island for loading stone into punts, and a coal wharf and bunker, are being built, and it is expected that the output of stone will begin very shortly.

Removal of Court House Rocks, Maclean.—The work of blasting and removing this rock was continued, and the total quantity removed to 30th June was 11,740 tons, leaving 13 feet at low water.

South Arm Rocks.—This reef is about three-quarters of a mile from the main river, near Maclean, and a hundred feet channel is being cut through it to a depth of 8 feet at low water. The stone removed was 4,775 tons.

Repairs to Wharfs.—Ulmarra Wharf was repaired, and the approach to Upper Southgate Wharf was protected by ballast, at a cost of £98.

Macleay River District.

Bellinger River Improvements.

No. 1 wall was extended 204 feet, making its total length to date 3,014 feet; the stone used was 24,216 tons. No. 2 wall was extended 214 feet, to a length of 1,384 feet, with 638 tons of stone. No. 5 wall was commenced, and 1,600 feet of it constructed, with an output of 2,957 tons.

The total length of these walls is now 5,998 feet, and stone used 109,002 tons, or about 18 tons per lineal foot, costing at contract rate £3 7s. 6d.

The result of these works has been very satisfactory, considering their unfinished state, the channel being now straight out from end of No. 1 wall, with 7 feet at low water on the bar.

Nambucca River Improvements.

North Training-wall.—This wall has been extended 634 feet, with 22,047 tons of stone; the total length is now 968 feet, for 25,025 tons of stone, or about 26 tons, costing £3 10s. per lineal foot of wall. This work is not yet advanced sufficiently to cause any improvement in the depth of water in channel or on the bar.

A new wharf at Bowra was erected at a cost of £507.

Macleay River, New Entrance.

The new channel was dredged to a depth of 10 feet at low water, or an average of about 14 feet depth of excavation, over an area of 10·7 acres; length of channel, 2,000 feet, by 250 feet wide.

South Wall.—447 feet of this wall was made with 15,587 tons of stone.

North Wall.—457 feet was constructed, and 1,980 feet of facing was completed, on north bank. This, with the stone deposited on north side for future use, took 41,625 tons of stone.

The expenditure to date was £9,452, or 3s. 0·75d. per ton on the 57,212 tons deposited.

Twenty-five tip trucks were built, locomotive got ready for work, and a shed erected for it.

The bar has not improved much yet, but all the steamers use this entrance, portion of their cargo being however transhipped into droghers under the shelter of the Trial Bay Breakwater. The average depth on the bar at low water has been 3 feet 9 inches.

A wharf is in course of construction at the end of South Training-wall, and is nearly completed; its dimensions are 50 feet by 15 feet.

A new wharf was erected at Summer Island on the Macleay River at a cost of £216.

Trial Bay Harbour Works.

17,751 tons of stone were deposited in the breakwater, which was extended from 537 feet to 600 feet, or 63 feet, which included making a washback of 55 feet, which took place during the gale of 5th November, 1896; the depth of water at end at low water is 28 feet. The cost for the year was £3,908, or 4s. 4·85d. per ton. The 600 feet of breakwater has taken 191,303 tons, costing £49,610, being 5s. 2·23d. per ton, or £82 13s. 8d. per foot of breakwater. This price includes running over 29,000 tons of stone under 4 tons in weight to spoil, and also removing nearly 109,000 cubic yards of stripping.

The average number of prisoners has been 116. In addition to the actual work on breakwater, two new quarries have been opened up ready for work when required, and all plant, gaol, quarters, &c., kept in repair.

Repairs to District Wharfs.

Greenhills, Belmore, Gladstone, Maxville, and Long Reach Wharfs were repaired at a cost of £190.

Newcastle District.

Hastings River.

A new wharf 46 feet by 20 feet with landing-stage and shoot from cargo-shed was completed at a cost of £432.

A wharf was erected near the entrance to Morton Creek costing £322.

A wharf at Rawdon Island was commenced.

Camden Haven.

A wharf was erected at Kendall costing £259.

Some rock was removed from the channel near the heads at a cost of £90.

Manning River.

North Training-wall.—This wall was extended 587 feet, with 30,833 tons of stone, costing £5,652; total length of wall is now 1,162 feet. The coating in front of wall was completed in October; stone deposited 6,887 tons; expenditure £1,550. The wall has therefore cost, altogether, £11,685 to date, or £10 1s. per lineal foot, and taken 62,169 tons, or 53½ tons per lineal foot.

River Training-wall, North Side.—This wall was extended 414 feet, with 23,000 tons of stone, costing £2,799, and is now 834 feet long, for 32,689 tons, or 39·2 tons, costing £4 10s. 3d. per lineal foot of wall.

Ghinni Ghinni Wharf was repaired at a cost of £206.

Small repairs were done to Taree Wharf.

Cape Hawke and Wallamba River.

Repairs were done to Tuncurry and Forster Wharfs, and a small wharf was constructed at Wallamba.

Myall River.

A wharf was constructed at Tea Gardens at a cost of £158.

Newcastle Harbour.

The Rock-breaker "Poseidon" removed a portion of the 12-foot rock near Stony Point, excavating 4,400 tons, at a cost of £1,592, or 7s. 3d. per ton.

The Rock-drill "Cliona" was engaged removing rock at the entrance to the new basin, an area of 1,285 feet by 25 feet was blasted to a depth of 4 feet, but none of it was lifted as no dredge was available.

Newcastle Wharfs.

General repairs to the wharfs, which are 11,800 feet long, were done at a cost of £642.

Extensive alterations and repairs to a portion of the Queen's Wharf were carried out, 760 feet being reconstructed and widened 10 feet, making two commodious berths for vessels to load wool and frozen meat, with a depth of 24 feet at low water; cost £5,094.

Two ballast jetties and seven mooring dolphins were constructed at Stockton on the reclamation line above Callen's Slip.

Breakwaters and Guide-wall.

The railway line from quarry to Wallsend Junction was completed, the quarry was opened up, a 40-ton weigh-bridge erected, shear-legs and other lifting gear fixed, quarry reserve fenced, gantry and sidings in connection with the southern breakwater and guide-wall constructed, railway line from the harbour across Stockton to the northern breakwater partly laid; 17 old waggons were fitted with new wheels, axles, &c., to bring them up to the Railway Commissioners' standard; 20 new tip-trucks were built; a wharf for gantry at Stockton was being constructed; 2 locomotives, 2 30-ton cranes, and other plant were purchased; expenditure, £30,943.

Hunter River.

A new wharf was built at Tomago for the convenience of settlers, at a cost of £443.

The Waratah Wharf was repaired, costing £130.

Paterson River.

A small wharf was erected at Woodville, costing £97.

Lake Macquarie.

A small jetty was erected near the Railway Station at Dora Creek for the convenience of fishermen and others, at a cost of £62.

Coal for Northern Rivers.—Arrangements were made for the purchase and despatch of 162 cargoes of coal, weighing 9,538 tons, for the use of dredges, tugs, harbour works, &c., on the northern rivers.

Repairs Shop, Bullock Island.—A large amount of work was done in connection with repairs to dredges, tugs, punts, and other plant at the workshop at Bullock Island.

Sydney

Sydney and South Coast District.

Broken Bay and Hawkesbury River.

A boat channel was cut between Riley's and St. Hubert's Islands, Woy Woy. Small repairs were done to wharfs at junction of Mangrove Creek, Wiseman's Ferry, Wiseman's Ferry Passenger Landing, junction of Colo River, Sackville Reach, and Careel Bay, Pittwater. Snagging was done at Mangrove Creek and the Macdonald River. Two wooden punts to carry 200 tons each were constructed at Woy Woy for conveying stone across the Harbour at Newcastle to the Northern Breakwater.

Port Jackson.

Wharfs and Sheds.—No. 2 Berth, Circular Quay, west side.—The masonry retaining wall, and ballast filling at the back of this wharf were completed, 1,026 cubic yards of masonry and 16,400 tons of ballast being used. A cargo shed of timber, with a tiled roof, was erected, at a cost of £1,619. Its dimensions are 200 feet by 40 feet. An office was also erected, costing £223.

Altering No. 3 Berth and Construction of No. 1 Jetty.—This contract, which is for replacing one of the old A.S.N. Co.'s jetties, was commenced in May, and is expected to be completed ready for the wool season.

No. 3 Berth.—A cargo shed was erected, length 100 feet, width 30 feet, costing £508, and a wharfinger's office for £50. 1,140 tons of material were excavated from the front of this berth, giving 26 feet at low water.

Prince's Stairs.—The necessary alterations to this jetty to fit it for receiving a pontoon were carried out, and pontoon placed in position.

Woolloomooloo Bay.

Alterations and Additions to Cowper Wharf.—This work was finished in August, 1896, and the cargo shed, 175 feet long by 35 feet wide, was also finished during the year.

East Side.—The work of levelling off the resumed land and reclaiming at back of wharf was continued. 8,190 tons of rock was excavated, and disposed of at Rusheutters' Bay, Circular Quay, and other places, as well as 3,850 tons put into the local reclamation, and 2,289 cubic yards of masonry in retaining wall at back of wharf.

The work of completing Nos. 1 and 2 berths, portion of which had previously been erected, was finished in May. The decking of No. 1 berth has been extended on a pile foundation as a floor for the cargo shed, and the shed of timber with a tiled roof, is now being erected. A similar shed is also being constructed on Berth No. 2. A road is also being formed and metalled along the back of these berths.

The Victoria-street Steps were finished during the year, and an iron railing put up.

Darling Island Wharfage.—A contract was let for a new ferry landing to replace one which has to be removed owing to the erection of the new concrete wharf round the Island, which is just being commenced.

Deepening at Pyrmont Wharfs.—The work of deepening the eastern berth of these wharfs, north from Pyrmont Bridge, was continued, and 1,980 tons of hard material was removed.

Deepening at Messrs. Geddes and Co.'s Berth, south of Pyrmont Bridge.—This was commenced in November, and during four months 2,990 tons of rock were blasted and lifted; a considerable quantity still remains to be lifted, but no dredge has been available.

Erskine-street Ferry Wharfs.—An awning was erected over the pontoon at this wharf.

Painting and Repairing all Passenger and Cargo Sheds at Circular Quay, Woolloomooloo Bay, and Erskine-street.—This work was carried out at a cost of £721.

Latrines on Circular Quay and Woolloomooloo Wharfs.—Four blocks of latrines were erected on these wharfs at a cost of £230.

Pontoon for 6-ton Crane.—A wooden pontoon, 54 feet long, 35 feet wide, and 4½ feet deep, is being built for carrying a 6-ton crane for general use in Sydney Harbour.

Fort Macquarie.—A small wharf was built, which is to be used by the Mercantile Explosives Department.

Wharf Repairs.—The following wharfs have been repaired:—Orient and Messageries Berths; Pyrmont; pontoon, Erskine-street Ferry; Cove-street, Balmain; Blackwattle Bay, Cockatoo Boat Landing, Rodd Island, Cabarita, Mortlake, Admiralty Wharf, Garden Island, Manly Old Wharf, Watson's Bay, and Long Wharf, Botany.

Botany Bay.

Two dolphins were constructed at the Long Wharf, Botany, for the convenience of vessels using that wharf.

Shea's Creek.

The excavation of the lower section above Rickety-street, which started in March, 1896, was finished; 110,777 cubic yards were taken out dry in trucks, and used for levelling the Government property. The pitching of the sides of the canal was continued, 9,300 lin. feet by 20 feet of stone work having been done. The Munni-street sewer was continued to the canal, according to the plans of the Sewerage Construction Branch. A concrete bed was put in at the head of the canal to conduct the waters of Shea's Creek into it. 180 trees received from the Botanic Gardens were planted.

Cook's River.

The banks have been repaired and faced with fascines for a length of 32,648 feet wherever it was found necessary.

Muddy Creek.

This reclamation was carried on by grab dredge, 68,915 cubic yards of material having been spread to formation level. A new bridge was constructed across Bestic-street to replace one damaged by flood water. The banks were repaired with fascines where necessary.

Wollongong

Wollongong Harbour.

Portion of the breakwater which had been damaged by heavy gales was repaired. General repairs to wharfs, coal staiths, cranes, &c., were done.

Kiana.

Wharfs, &c., kept in order.

Ulladulla Breakwater.—Retaining wall to protect the eastern side of breakwater has been constructed, and repairs done to breakwater.

Port Kembla.—Shafts were sunk to prove the existence of the necessary stone for constructing the proposed harbour works.

Dredge Dock, Shoalhaven.—Repairs to this dock and a small extension were carried out during the year.

Greenwell Point Wharf.—A contract was let for this work, but such slow progress was made that it was taken out of the contractor's hands and finished by the Department.

Moruya Wharf.—This wharf was extended, and a derrick crane erected on it.

Eden Jetty.—Stockyards, 5-ton crane, and latrines, were erected on this wharf.

Naroomba, Bermagui, Tathra, and Bateman's Bay wharfs were repaired.

Fitzroy Dock Establishment.

Work carried out from 1st July, 1896, to 30th June, 1897 :—

			£	s.	d.	£	s.	d.
Dredge Service—								
Docking and General Repairs to Ladder Dredges						3,055	16	1
" " Suction and Grab Dredges						5,811	9	3
Docking and Repairs to Tugs						1,100	4	6
" " Barges and Punts						2,040	3	5
Sand Pump Machinery Castings, &c.						44	18	10
Inspecting Stores, &c.						36	15	0
New Engines and Boiler						1,040	0	0
								13,129 7 1
Dredge "Delta"—Alterations						1,019	2	8
" "Eta" " " " " " " " " " " " "						2,584	1	2
" "Gamma" " " " " " " " " " " " "						737	5	8
" "Tau" " " " " " " " " " " " "						2,833	1	10
" "Theta" " " " " " " " " " " " "						3,968	19	4
								11,142 10 8
Tug "Dayspring"—								
Docking and General Overhaul						902	6	9
New Engine						470	18	9
" Boiler						380	0	0
								1,753 5 6
Tug "Ceres"—Docking and General Overhaul... ..						667	0	1
" "Dawn" " " " " " " " " " " " "						407	17	8
" "Europa" " " " " " " " " " " " "						220	18	8
" "Mikado" " " " " " " " " " " " "						208	6	1
" " Old Boiler						192	18	4
" " Boiler Tubes						12	0	0
" "Thetis"—Docking and General Overhaul						340	9	4
" " New Steering Gear						105	0	0
" "Orestes"—Docking and Overhaul						529	0	3
Manning River Dock						24	5	8
								2,707 16 1
"Pholas"—Docking and Repairs... ..								67 0 11
5-ton Crane " " " " " " " " " " " "								218 17 10
15 " " " " " " " " " " " "								126 7 6
30-ton Crane Punt-Construction								783 7 2
Special Service Boat, &c.								8 0 3
"Leila"—Stores and Repairs to Hull						205	9	8
" Wages						300	0	8
" Water, Coal, &c.						118	2	4
								623 12 8
Repairs to Wharfs, Sydney								709 8 8
" " in Country								61 16 2
Byron Bay Jetty Moorings								22 5 4
Testing Iron, Steel, &c.								151 12 7
Floating Stage, Prince's Stairs								54 9 3
Shea's Creek, &c.								236 17 2
Reclamation Works, Pipes, &c.								1,133 17 3
Darling River—Snagging Plant, &c.								59 17 3
Richmond River Improvements—Snagging, &c.								147 15 3
Sundry Work for Head Office								71 3 4
" Garden Island								130 1 7
Trial Bay Steam Winch, Trucks, &c.								110 15 6
Macleay River—New Entrance, Trucks, &c.								1,081 3 6
Harbour and other Surveys, Boring Gear, &c.								224 4 2
South Solitary Lighthouse, Crane and Repairs to Revolving Gear								344 6 11
Steam-barge "Powerful"—Machinery								118 0 1
Newcastle Harbour Improvements—Gantries, Tip Trucks, Winch, &c.								1,836 7 5
								Fitzroy

Fitzroy Dock Establishment—		£	s.	d.	£	s.	d.
Excavating Rock	...	1,439	19	9			
General Work—Pumps, Cranes, &c.	...	1,564	5	2			
S.S. "Swift"—New Engines, &c.	...	467	2	1			
Boiler, Machine, and other Shops	...	632	3	8			
Sutherland Dock—					4,103	10	8
Repairs, Machinery... ..	...	777	7	0			
" " Electric Light	...	198	0	4			
Repairs and Docking War Vessels	...	713	9	7			
" " Merchant Vessels	...	369	13	1			
Repairs to, and new Cutter for, Rock Breaker, "Poseidon"	...				1,083	2	8
Water Supplies—					766	19	3
Test of Arch, Centennial Park Reservoir	...	43	11	4			
Model,&c.,,, " "	...	21	13	7			
Pipes for various supplies... ..	...	784	17	11			
Water Conservation—					850	2	10
Punt for Bourke, &c.	...				85	4	0
Sundry Departments—							
S.S. "Ajax"—Altering to Pilot Steamer	...	6,805	19	8			
" " Golden Fleece"—Repairs	...	110	4	4			
Marine Board, Sheds and Boats Repairs	...	145	2	8			
S.S. "Carrington"—Repairs	...	96	10	3			
" " Sol " "	...	42	11	8			
" " Premier " "	...	79	18	4			
" " Biloela " "	...	69	3	5			
" " Captain Cook " "	...	715	0	10			
Health Department's Launch	...	168	19	10			
S.S. "Kate"	...	241	0	10			
Quarantine Steam Launch	...	1	1	11			
S.S. "Mabel" ,," "	...	68	5	5			
Customs Launch—Repairs	...	380	0	11			
Powder Hulk "	...	26	3	0			
S.S. "Nemesis" "	...	4	12	3			
" " Nea " "	...	4	0	11			
" " Lilian " "	...	68	3	1			
" " Gladys " "	...	78	16	5			
Water and Sewerage Board's Punt, &c.	...	39	19	3			
Railway Commissioners—Repairs to Darling Harbour Cranes	...	164	0	9			
Marine Board Buoys for Macquarie Point, Shark Point, Wollongong, &c.	...	125	1	0			
Railways and Tramways—Rail-cutting Machine, &c.	...	119	18	10			
Record Reign Illuminations	...	85	17	0			
Clark Island—Asphalting, &c.	...	7	12	1			
Sewerage Survey—Boring Gear, &c.	...	22	8	7			
Rodd Island... ..	...	1	14	0			
Biloela Gaol Fence	...	90	18	3			
Cockatoo School	...	16	6	7			
"Sobraon"—General Repairs	...	529	3	7			
Roads and Bridges—Cranes, Bolts, &c., &c.	...	833	14	10			
" " Timber Storage at Dock	...	502	17	1			
Middle Harbour Punt—Repairs	...	113	5	6			
Cement issued to various works	...				11,758	13	1
Sundry small works	...				594	18	2
Watchman, Darling Island	...				47	4	9
Total... ..	...				159	12	0
					57,479	1	10

Conversion of s.s. "Ajax" into a Pilot Steamer for Service at Newcastle.—This vessel, which, owing to the increased use of sand pump dredges, and consequent depositing of silt on shore, and diminution of quantity towed to sea, was not further required for the dredge service, has been converted into a pilot steamer for use of the local Marine Board at Newcastle. She has been covered over with a flush deck, and fitted with commodious cabins for the pilot officers and crew, and with all the latest improvements in electric lighting, steam steering gear, &c. The vessel is now nearly finished, and will probably be handed over to the Newcastle Marine Board about the 1st September. The work was done by day labour at the dock.

Pontoon for 30-ton Crane.—A wooden pontoon, 80 feet long, by 42 feet wide, by 7 feet deep, to carry the 30-ton crane, for lifting the blocks proposed to be used in constructing the new concrete wharf at Darling Island, is being built.

Additional Boiler-house Accommodation at the Sutherland Docks.—The boiler house was extended for the accommodation of two extra boilers. The new portion is 30 feet by 24 feet, built of brickwork in cement, with pressed-brick facings, white brick and freestone dressings, and trachyte basecourse. The cost was £338.

Grab Dredges "Delta," "Eta," "Theta," and "Gamma."—These vessels have been lengthened about one-third of their original length, by being cut in two amidships and the new portion introduced, and converted into combined grab and suction dredges, to enable them to deal with the various materials met with in the different rivers. The "Delta" and "Eta" are now at work, but the other two are not yet finished.

Lighthouses

Lighthouses, Beacons, Leading Lights, &c.

The annual inspection of the lighthouses of the Colony was made by an officer of the Department accompanying the members of the Marine Board on their usual tour, and a report made on the condition of the various buildings.

South Solitary Island.—A crane was made at the Fitzroy Dock and erected on the Island for landing stores, &c. The revolving gear of lantern was overhauled and repaired.

Tacking Point.—Repairs were done to the light-keepers' quarters at a cost of £60.

Newcastle.—Repairs to quarters were carried out, costing £118. The leading light towers were painted and repaired; cost, £106. A pile beacon to replace the lightship near the pilot boat harbour was erected at a cost of £450. A new tide-gauge house was erected at the pilot station, costing £49.

Macquarie Lighthouse, South Head.—General repairs and painting were done to quarters and lighthouse at a cost of £203.

Hornby Light.—Water was laid on from the city mains, vane and ventilator on lantern, electric bells, and keeper's quarters were repaired, costing £40.

New Lighthouse, Point Perpendicular, Jervis Bay.—The light on George's Head having been found not to be in the most suitable position, it was determined by the Marine Board to have a new lighthouse erected, and Point Perpendicular was selected as the best site. A contract was let at the close of the year for the erection of the lighthouse, lantern, three keepers' houses, stables, and a jetty. The walls of buildings are to be of concrete. Contract price is about £11,000. The lantern and revolving apparatus—a first order dioptric—was manufactured in England by Messrs. Chance Bros., at a cost of about £4,000, and is now in Sydney ready for erection.

*(c) North Coast District.**Richmond River.*

Tuckombil Flood Escape.—This work having been abandoned by the contractor was completed by the Department at a total cost of £5,213.

Newcastle District.

Reclamation at Stockton.—The retaining walls were extended 420 feet with 6,225 tons of ballast; total length of wall is now 2,570 feet. Seven acres of reclaimed land were covered with 20,531 tons of ballast from ships.

Reclamation at Bullock Island.—Retaining walls on Throsby's Creek were constructed—one from Hargrave-street south 644 feet, and one from the railway bridge north 706 feet, partially finished. 104,312 tons of ballast was discharged from 210 vessels at the ballast jetties, averaging 519 tons per ship. It was used for reclaiming Crown lands at the north end of Carington. Reclamation was also carried on by sand-pump dredge, north of Cowper-street, where a valuable area is being reclaimed.

Sydney and South Coast District.

Rushcutter's Bay Sea-wall and Reclamation.—The wall, which is 2,510 feet long, was completed with the exception of the parapet, a boat-slip was constructed, the space behind wall reclaimed, and all drains extended to the water.

Long Cove Reclamation.—The ground has been levelled where reclaimed by the "Groper," and grass planted. The driving of piles along the sides of canal has been completed, 1,230 feet of piles having been driven, making a total of 21,068 feet.

Rozelle Bay.—Ground has been levelled and grassed as filling was completed.

White's Creek.—Banks have been formed to protect private property from overflow of water, tram embankment strengthened, drain-pipes laid along Gordon-street, and drains cut to carry off water from dredge's pipes.

Coogee Bay Sea-wall.—The roadway and footpath at back of this wall were completed.

Naval Station, Garden Island.

The contract for the erection of the boat-repairing shop was completed in September.

The electric lighting of the island, shops, and different houses, which was let by contract and included the supply and erection of three high-speed Bellis engines, coupled direct to Siemens dynamos, 24 arc lamps of 2,000 candle power, and 628 16 candle power incandescent lamps. The installation was successfully completed on May 18th, at a cost of £4,193. A tile floor was placed in dynamo room at a cost of £101.

Spectacle Island.—A contract was let for the construction of a swimming-bath, the erection of a dressing-shed and recreation-room, the alteration of the sanitary arrangements, including a windmill for pumping saltwater. Total cost was £472.

H. R. CARLETON,

Principal Assistant Engineer for Harbours and Rivers.

Dredge Service.

(V.)

Report of the Superintendent of Dredges.

Sir,

Department of Public Works, Sydney, 30 September, 1897.

As it has been decided that the annual reports of dredging operations shall be submitted at the middle instead of the close of each year, I have had a six months' statement compiled, covering the period from 1st January to 30th June of the present year, and also, for the purpose of comparison, a table showing the cost of work from 1st January, 1896, to 30th June, 1897. The reason for showing in one statement eighteen months' work is, that it would be somewhat misleading if the cost of the first six months of a year were compared with that of the whole of the preceding year, as extensive repairs are generally effected during the first months of each year. As future returns will be from the middle of one year to the middle of the following one, the usual comparisons of consecutive years' dredging can, after 1897, be made as heretofore.

Since my report of April last but few changes have taken place in the working localities of the dredges. The double-ladder dredge "Hunter" was again put in commission in May last and sent to Newcastle to take the place of the sand pump "Jupiter," it having been determined to send the latter vessel to the Macleay Bar to try if it was practicable to work inwards from the sea. An attempt to do this would have been made before had there been any port, within reasonable distance, at which coaling could be effected and shelter obtained during easterly gales. Sufficient progress it was thought had been made with the Trial Bay Breakwater to effect these objects, and the "Jupiter" left for Trial Bay on 23rd June. A start was made with pumping at sea outside the bar at the new entrance, and while reasonably fine weather lasted most satisfactory progress was made; but on 25th July a furious easterly gale arose which swept away part of the breakwater, and the "Jupiter" had to go to sea and to encounter the full force of the storm, returning afterwards to the bay. The tender "Mikado" unable either to cope with the gale or cross the bar sought shelter behind the breakwater, and foundered soon after the outer part of the structure carried away. The boiler and engines of the little vessel have been recovered and a new hull for them has been recommended. Continuous rough weather and the early setting in of north-east winds caused the temporary withdrawal of the "Jupiter" and resumption by that dredge of pumping work at Sydney.

Much difficulty has been met with in arranging for a suitable sand-pump for dealing with very shallow bars, the chief obstacle being the designing of a vessel powerful enough to contend with heavy seas and of light enough draft to carry a cargo of sand over a shallow bar. Self-loading and self-propelling bar sand-pumps have for some time been working in the United States, but there 9 feet is considered a shallow bar. Here only 5 feet is available, but by taking advantage of the latest improvements for lessening weight in boilers, engines, and pumps, the Department has succeeded in obtaining a tender in Scotland for a twin-screw dredge of 700 horse-power, designed to load herself while steaming slowly over bars and to draw when laden not more than 5 feet. At such bars as those at the entrances to the Richmond, Bellinger, Nambucca, Macleay, Hastings, Manning, Moruya, &c., this vessel will carry on the work of deepening by steaming slowly in, turning inside, and crossing out to dump her hopper-load at sea. The two sand-pumps on board, with suction pipes trailing on the bottom, are driven by special engines, so that propelling and pumping go on simultaneously. The new dredge will steam out by way of the Suez Canal, and should be here by August next year.

Reclaiming work at Rozelle Bay, referred to in my last report, has been temporarily suspended to permit of storm-water channels being constructed, and the suction-dredge "Groper" has been employed reclaiming about 9 acres of land at Folly Point, Middle Harbour, in connection with sewage disposal for North Sydney. The "Groper" is now reclaiming land at Rushcutters Bay, and before returning to Rozelle Bay will undertake similar work at the entrance to Tarban Creek.

The "Castor" is being fitted with a very large centrifugal pump, suited for 800 horse-power, to be used for pumping on to reclamation areas at Newcastle the silt lifted by the ladder-dredges which is now deposited at sea. The sand-pump "Theta," recently sent to the Bellinger, is working near the river heads satisfactorily, and a similar dredge, the "Eta," just completed at Fitzroy Dock, will be towed in a few days to Port Macquarie. It is contemplated recommending that two ladder-dredges of the "Minos" type be fitted with sand-pumps, so that they may be used with buckets and shore-delivery pump working at the same time or separately as either a ladder-dredge discharging into punts or as sand-pump only delivering sand on to reclamations.

The whole of the plant is being kept in good working condition.

I have, &c.,

The Engineer-in-Chief, Public Works.

A. B. PORTUS.

STATEMENT of Ladder Dredge Expenditure and Work, 1st January to 30th June, 1897.

Ladder Dredge.	Where dredging.	Material lifted.	Tons dredged.	Hours dredging.	Working hours.	Expenditure.	Cost per ton.	Cost per hour dredging.	Cost per working hour.	Percentage of working hours.							Remarks.
										Dredging.	Coaling.	Removals.	Bad weather.	Waiting punts.	Repairs.	Other causes.	
"Samson"	Newcastle	Ballast and sand	164,400	880	1,357	£ s. d. 1,590 6 2	d. 2'32	£ s. d. 1 16 2	£ s. d. 1 3 5	64	2	2	13	13	6	...	Repaired after being laid up several months.
"Sydney"	Sydney	Clay, sewage, &c.	107,990	749	1,316	2,207 0 0	4'90	2 19 0	1 13 6	57	1	9	...	2	29	2	
"Newcastle"	Newcastle	Mud	239,600	1,001	1,376	2,090 17 5	2'09	2 1 9	1 10 5	73	1	7	14	1	4	...	
"Hunter"	Sydney	Sewer matter	6,090	92	392	664 4 3	26'18	7 4 5	1 13 11	23	...	32	2	...	43	...	
"Vulcan"	Hunter River	Sand and mud	77,360	727	1,297	2,008 14 10	6'23	2 15 3	1 11 0	56	...	6	1	5	31	...	Laid up since February.
"Fitzroy"	Macleay River	Sand	14,150	245	420	604 18 6	10'26	2 9 5	1 8 10	59	3	19	...	...	16	3	
"Ulysses"	Manning River	Clay and mud	123,760	1,076	1,349	1,153 0 6	2'24	1 1 5	0 17 1	82	2	6	...	2	7	1	
"Minos"	Clarence River	Shingle and sand	82,600	716	1,295	1,151 5 1	3'34	1 12 1	0 17 9	56	3	11	2	4	23	1	
"Pluto"	Shoalhaven River	Sand and mud	76,780	483	1,336	1,215 14 0	3'80	2 10 4	0 18 3	56	5	6	2	35	16	...	
"Archimedes"	Sydney	Sewage and sand	93,550	801	1,024	939 11 4	2'41	1 3 6	0 18 4	78	1	6	...	...	15	...	
Averages			986,280	6,770	11,162	13,625 12 1	3'32	2 0 3	1 4 5	58	2	11	3	6	19	1	

STATEMENT of Sand Pump Expenditure and Work for six months ending 30th June, 1897.

Sand-pump Dredge.	Where pumping.	Material lifted.	Estimated tons lifted.	Hours pumping.	Working hours.	Expenditure.	Cost per ton pumping.	Cost per hour pumping.	Cost per working hour.	Percentage of working hours.							Remarks.
										Pumping.	Coaling.	Removals.	Bad weather.	Conveying silt to sea.	Repairs.	Other causes.	
"Neptune"	Cook's River	Sand	162,900	905	1,340	£ s. d. 1,742 14 10	d. 2'57	£ s. d. 1 18 6	£ s. d. 1 6 0	68	4	16	1	...	9	2	Includes depositing at sea. Extensive overhaul and removals.
"Juno"	Newcastle	Sand and mud	130,880	430	1,359	1,454 1 7	2'67	3 7 8	1 1 5	31	3	...	13	37	15	...	
"Jupiter"	do	Sand	139,200	435	1,259	2,617 12 9	4'51	6 0 4	2 1 7	35	4	12	4	...	45	...	
"Actor"	Tweed River	do	194,175	863	1,328	1,694 17 11	2'09	1 19 3	1 5 6	65	3	19	1	...	11	1	
"Alesus"	Nambucca River	do	180,000	900	1,334	1,224 4 8	1'63	1 7 2	0 18 5	68	2	16	...	...	14	...	
"Dorus"	Macleay River	do	209,115	1,162	2,290	2,519 2 2	2'89	2 3 4	1 2 0	51	3	13	...	...	33	...	
"Dictys"	Richmond River	do	160,560	892	1,341	1,310 10 7	1'96	1 9 5	0 19 7	67	...	12	...	...	11	10	
"Groper"	Sydney	Sand and mud	199,955	804	1,338	1,894 1 11	2'27	2 7 1	1 8 4	60	...	9	...	...	20	11	
Averages			1,376,785	6,391	11,589	14,457 6 5	2'52	2 5 3	1 4 11	56	2	12	2	5	20	3	

STATEMENT of Combined Grab and Sand-pump Dredge Expenditure and Work for six months ending 30th June, 1897.

Grab and Sand-pump Dredge.	Where pumping.	Material lifted.	Estimated tons lifted.	Hours pumping.	Working hours.	Expenditure.	Cost per ton.	Cost per hour pumping.	Cost per working hour.	Percentage of working hours.							Remarks.
										Pumping.	Coaling.	Removals.	Bad weather.	Conveying silt to sea.	Repairs.	Other causes.	
14—F "Delta"	Camden Haven	Sand	140,360	1,170	1,371	£ s. d. 629 0 8	d. 1'08	£ s. d. 0 10 9	£ s. d. 0 9 2	86	1	6	...	...	7	...	Commissioned in April, 1897.
"Sigma"	Myall River	do	67,450	1,030	1,359	683 15 0	2'43	0 13 3	0 10 1	76	2	14	...	...	2	6	
"Rho"	Cape Hawke	do	174,000	988	1,339	729 9 5	1'01	0 14 9	0 10 10	74	2	12	1	...	9	2	
"Tau"	Port Hacking and Moruya	do	109,240	720	1,516	1,082 5 11	2'38	1 10 1	0 14 4	48	2	27	3	...	17	3	
"Theta"	Bellinger River	do	51,469	406	684	674 8 3	3'14	1 13 3	0 19 9	59	3	37	...	...	...	1	
Averages.....			542,519	4,314	6,269	3,798 19 3				69	2	19	...	...	7	3	
							1'68	0 17 7	0 12 1								

STATEMENT of Grab Dredge Expenditure and Work for six months ending 30th June, 1897.

Grab Dredge.	Where dredging.	Material lifted.	Tons dredged.	Hours dredging.	Working hours.	Expenditure.	Cost per ton.	Cost per hour dredging.	Cost per working hour.	Percentage of working hours.							Remarks.
										Dredging.	Coaling.	Removals.	Bad weather.	Waiting punts.	Repairs.	Other causes.	
"Alpha"	Tweed River	Sand and mud	7,115	204	1,207	£ s. d. 363 14 6	d. 12'27	£ s. d. 1 15 8	£ s. d. 0 6 0	17	7	3	1	...	72	...	Long delay through breakdown. Dredged blasted material, &c. Laid up for alteration.
"Beta"	Sydney	Sewage, clay, and rock	11,965	921	1,099	387 10 8	7'77	0 8 5	0 7 1	84	1	7	...	1	6	1	
"Gamma"	Hastings River	Shingle	3,300	174	525	209 11 7	15'24	1 4 1	0 8 0	33	...	38	...	3	26	...	
"Zeta"	Richmond River	Hard sand	32,220	1,179	1,357	310 17 4	2'32	0 5 3	0 4 7	87	3	...	...	...	10	...	Dredging blasted material, &c.
"Iota"	Nambucca River	Gravel	25,815	825	1,314	286 9 2	2'66	0 6 11	0 4 4	63	1	4	...	...	16	16	
"Kappa"	Hunter River and Lake Macquarie.	Sand, stone, silt	13,806	637	1,158	308 6 9	5'36	0 9 9	0 5 4	55	4	25	1	4	7	4	
"Lambda"	Clarence River	Gravel, clay	8,925	1,122	1,370	228 6 2	6'13	0 4 1	0 3 4	75	1	8	...	...	7	9	Dredging blasted material, &c.
"Mu"	Richmond River	Sand, clay	28,222	840	1,297	338 10 0	2'88	0 8 1	0 5 3	65	3	2	2	...	24	4	
"Nu"	Newcastle	Rock, mud, sand	12,484	663	1,298	485 13 4	9'34	0 14 8	0 7 6	59	...	7	5	11	17	1	
"Omicron"	Cook's River	Sand, clay	32,726	866	1,324	334 7 5	2'45	0 7 9	0 5 1	66	1	9	...	...	23	1	Extensive repairs. do and removal. Dredging rock.
"Pi"	Sydney	Sand	13,540	892	1,243	742 9 4	13'16	0 16 8	0 11 11	72	...	5	...	3	19	1	
"Chi"	Bellinger River	Sand, gravel	15,050	483	948	719 12 6	11'44	1 9 9	0 15 2	51	1	40	...	1	7	...	
"Omega"	Clarence River	Rock	2,435	371	1,287	357 15 4	35'26	0 19 3	0 5 7	29	1	5	...	...	2	63	
Averages.....			207,643	9,177	15,427	5,073 4 1		5'86	0 11 1	0 6 0	58	2	12	...	2	18	8

STATEMENT of Tug Expenditure and Work for six months ending 30th June, 1897.

Tug.	Where employed.	Tons towed.	Miles run towing.	Miles run special services.	Total working hours.	Hours attending.	Cost of towing.	Cost of special services.	Cost per ton.	Cost per mile towing.	Cost per mile special service.	Cost per working hour.	Cost per hour attending.	Percentage of time.									
														Steaming.	Coaling.	Repairs.	Bad weather.	Other causes.					
							£ s. d.	£ s. d.	pence.	pence.	pence.	s. d.	s. d.										
"Thetis"	Sydney	10,690	575	5,191	1,533	1,334	114 12 1	1,300 19 2	2'57	47'83	60'15	18 6	21 3	57	1	13	16	13					
"Ceres"	Newcastle	164,300	4,426	.....	1,326	1,275	569 13 9	.....	0'83	30'89	...	8 7	8 11	69	4	4	11	12					
"Orestes"	do	240,100	4,386	60	1,354	1,351	598 4 2	5 7 3	0'60	32'73	21'45	8 11	8 11	83	3	...	11	3					
"Dione"	Manning River	123,520	4,014	94	1,297	1,242	407 2 8	7 6 10	0'79	24'34	18'74	6 5	6 8	75	1	4	...	20					
"Dawn"	Sydney	81,250	3,208	1,963	1,377	1,067	500 15 11	312 10 4	1'48	37'47	38'21	11 9	15 3	65	1	23	...	11					
"Achilles"	do	99,430	2,231	140	1,046	1,021	343 18 10	10 15 5	0'83	36'99	18'46	6 9	6 11	63	3	2	...	32					
"Little Nell"	do	22,230	710	124	316	243	126 1 2	25 11 7	1'36	42'61	49'50	9 7	12 6	57	3	23	2	15					
"Cyclops"	Shoalhaven	6,303	505	.....	173	144	155 1 8	.....	5'91	73'70	...	17 11	21 6	67	3	17	...	13					
"Ganymede"	Newcastle	12,300	478	3,053	1,268	1,236	39 6 10	346 11 0	0'77	19'75	27'24	6 1	6 3	88	...	3	...	9					
"Dayspring"	Sydney	15,925	892	3,567	1,367	1,193	84 9 2	414 6 11	1'27	22'72	27'88	7 4	8 4	66	2	13	...	19					
"Mikado"	Shoalhaven	70,240	4,246	600	1,477	1,334	431 1 5	81 18 0	1'47	24'36	32'76	6 11	7 8	71	3	9	4	13					
"Scylla"	Lake Macquarie	13,605	1,763	.....	1,218	1,045	176 13 1	.....	3'12	24'05	...	2 10	3 5	65	3	14	...	18					
"Callisto"	Bellinger River	5,100	633	.....	679	339	236 17 3	.....	11'14	89'80	...	7 0	14 0	29	2	51	...	18					
"Ariel"	Newcastle	.....	.....	3,531	1,152	1,072	.....	162 9 5	...	...	11'03	2 9	3 0	57	...	7	...	36					
"Vesta"	Clarence River	82,600	1,793	.....	1,298	1,104	152 3 9	.....	0'44	20'37	...	2 4	2 9	66	5	15	...	14					
"Oberon"	Hastings River	3,300	516	901	1,183	834	87 3 8	75 2 4	6'34	40'55	20'00	2 9	3 11	29	4	29	...	38					
"Europa"	Sydney	.....	.....	2,289	1,205	1,168	.....	133 11 10	...	...	14'00	2 2	2 3	71	2	3	...	24					
"Aurora"	do	10,570	1,606	1,485	1,005	916	164 1 3	124 18 10	3'73	24'52	20'19	5 9	6 4	62	3	9	...	26					
"Galatea"	Hunter River	78,150	5,497	125	1,352	1,045	710 11 11	23 3 6	2'18	31'02	44'49	10 10	14 0	69	3	23	...	5					
"Octopus"	Sydney	8,640	1,099	2,145	1,371	1,273	76 14 9	145 15 9	2'13	16'76	16'31	3 3	3 6	90	...	7	...	3					
		1,048,250	38,578	25,271	22,997	20,236	4,974 13 4	3,170 8 2															
Averages														1'14	30'95	30'11	7 1	8 1	65	2	14	2	17

STATEMENT of comparative quantity and cost of work done by Ladder Dredges (with towing), 1895 and 1896 to 30th June, 1897.

Ladder Dredge.	1st January to 31st December, 1895. Dredging, towing, and repairing.			1st January, 1896, to 30th June, 1897. Dredging, towing, and repairing.			Remarks.
	Tons.	Expenditure.	Pence per ton.	Tons.	Expenditure.	Pence per ton.	
		£ s. d.			£ s. d.		
"Samson," at Newcastle	545,625	8,852 9 10	3'89	711,985	9,115 15 4	3'07	
"Sydney," at Sydney	363,290	4,421 4 10	2'92	471,060	7,568 18 7	3'86	
"Charon," at Hawkesbury River and Port Hacking	170,340	2,612 9 9	3'68	145,370	2,785 15 11	4'59	
							1896.
"Newcastle," at Newcastle	1,312,430	11,586 18 2	2'12	1,202,850	12,369 10 7	2'47	Hawkesbury River.....
"Hunter," at Sydney	403,840	6,764 3 5	4'02	211,040	4,760 0 7	5'41	Port Hacking.....
"Vulcan," at Hunter River	229,480	5,238 18 4	5'48	289,490	6,629 15 9	5'50	
"Alcides," at Richmond River	215,500	3,239 11 10	3'61	104,900	2,337 12 8	5'34	
"Fitzroy," at Macleay River	186,590	3,383 18 11	4'35	197,696	4,040 0 8	4'90	
"Ulysses," at Manning River	186,040	3,267 10 1	4'21	344,390	4,924 8 2	3'43	
"Minos," at Clarence River	239,030	2,623 17 4	2'63	235,960	3,637 18 6	3'70	
"Pluto," at Shoalhaven	92,400	1,887 4 4	4'90	205,060	4,461 16 10	5'22	
"Archimedes," at Sydney	35,560	1,346 8 1	9'09	169,720	2,700 11 11	3'82	
							Tons.
							11,390
							133,980
							£ s. d.
							214 1 4
							2,571 14 7
							Pence per ton.
							4'51
							5'41

STATEMENT of comparative quantity and cost of work done by Sand-pumps (with towing), 1895, and from 1st January, 1896, to 30th June, 1897.

Sand Pump Dredge.	1st January to 31st December, 1895. Dredging, Depositing, and Repairing.			1st January, 1896, to 30th June, 1897. Dredging, Depositing, and Repairing.							
	Tons.	Expenditure.	Pence per ton.	Tons.	Expenditure.	Pence per ton.					
		£ s. d.	d.		£ s. d.	d.					
							1896-7.	Tons.	£ s. d.	Pence per ton.	
"Neptune," at Sydney, Bateman's and Twofold Bays, and Cook's River	309,670	3,396 3 11	2'63	338,100	4,285 19 11	3'04	Sydney	23,800	329 9 9	3'32	
							Bateman's Bay	134,800	1,212 14 4	2'15	
							Twofold Bay	16,600	955 4 6	13'81	
							Cook's River	162,900	1,788 11 4	2'64	
"Juno," at Newcastle	295,410	2,585 13 11	2'10	473,180	4,180 7 1	2'12					
"Jupiter," at Newcastle	197,890	2,792 4 5	3'39	685,500	5,535 12 1	1'94					
"Actor," at Tweed River.....	331,812	1,969 4 3	1'42	580,425	3,972 7 1	1'64					
"Alesus," at Nambucca River.....	461,137	4,091 1 4	2'13	474,400	4,046 3 4	2'05					
"Dorus," at Macleay River	312,800	2,332 11 0	1'79	653,115	6,249 12 0	2'30					
"Dictys," at Richmond River.....	301,575	2,549 4 5	2'03	481,920	3,398 9 6	1'69					
"Groper," at Sydney	343,370	3,839 12 0	2'74	782,970	5,088 3 7	1'56					

STATEMENT of comparative quantity and cost of work done by Grab and Sand-pumps (with towing), 1895, and from 1st January, 1896, to 30th June, 1897.

Grab and Sand Pump Dredge.	1895.			1st January, 1896, to 30th June, 1897.			
	Tons.	Expenditure.	Pence per ton.	Tons.	Expenditure.	Pence per ton.	
					£ s. d.	d.	
"Delta" at Camden Haven.....	Nil	Nil	Nil	210,820	1,506 8 9	1'71	
"Sigma," at Myall River.....	"	"	"	217,050	2,230 0 1	2'47	
"Rho," at Cape Hawke	"	"	"	340,790	2,154 0 1	1'52	
"Tau," at Port Hacking and Moruya	"	"	"	128,220	2,271 15 11	4'25	{ 1896-7. Port Hacking 83,280 1,713 1 0 4'94 Moruya 44,940 558 14 11 2'98
"Theta," at Bellinger River	"	"	"	51,469	677 12 0	3'16	
Star'ed as combined grab and sand-pump, April 4th, 1897.							

STATEMENT of comparative quantity and cost of work done by Grab Dredges (with towing), 1895, and from 1st January, 1896, to 30th June, 1897.

Grab Dredge.	1895.			1st January, 1896, to 30th June, 1897.			
	Tons.	Expenditure.	Pence per ton.	Tons.	Expenditure.	Pence per ton.	
		£ s. d.	d.		£ s. d.	d.	
"Alpha," at Tweed River	61,535	688 15 0	2'69	48,538	1,179 15 11	5'83	
"Beta," at Sydney	30,200	1,186 13 4	9'43	41,590	2,490 19 11	14'37	
"Gamma," at Hastings River	43,950	1,092 8 1	5'97	53,150	1,393 15 2	6'29	
"Zeta," at Richmond River	74,534	1,091 18 10	3'52	96,170	1,376 7 3	3'43	
"Eta," at Camden Haven	46,650	1,031 5 4	5'31	46,220	955 16 10	4'96	
"Theta," at Clarence River	9,585	710 7 0	17'79	2,025	660 7 4	78'26	
"Iota," at Nambucca River	52,902	810 10 1	3'68	71,806	1,236 19 6	4'13	
"Kappa," at Hunter River and Lake Macquarie	71,080	1,527 5 6	5'16	89,256	2,216 17 1	5'96	
"Lambda," at Clarence River				15,920	505 1 0	7'61	
"Mu," at Richmond River	23,030	1,226 9 6	12'78	79,172	1,318 19 11	4'00	
"Nu," at Newcastle	18,935	807 9 4	10'23	21,624	1,155 11 5	12'83	
"Omicron," at Cook's River	61,194	507 18 4	1'93	98,874	841 1 3	2'04	
"Pi," at Sydney	58,170	816 19 11	3'37	61,215	2,158 10 5	8'46	
"Chi," at Bellinger River	102,880	2,075 6 7	4'84	99,458	2,854 2 3	6'89	
"Omega," at Clarence River	56,175	865 0 4	3'70	22,006	1,077 4 7	11'75	
							Laid up for alterations on June 7, 1896.
							1896-7. tons.
							£ s. d. Pence
							per ton.
							Lake Macquarie
							11,495 419 3 10 8'75
							Hunter River
							77,761 1,797 13 3 5'55

AVERAGE Cost of Dredging and Conveying, 1895, and from 1st January, 1896, to 30th June, 1897.

Class of Dredge.	1st January to 31st December, 1895.							1st January, 1896, to 30th June, 1897.						
	Tons dredged.	Hours dredging.	Dredging only.			Dredging and Towing.		Tons dredged.	Hours dredging.	Dredging only.			Dredging and Towing.	
			Expenditure.	Average cost per ton.	Average cost per hour.	Expenditure.	Average cost per ton.			Expenditure.	Average cost per ton.	Average cost per hour.	Expenditure.	Average cost per ton.
			£ s. d.	d.	£ s. d.	£ s. d.	d.			£ s. d.	d.	£ s. d.	£ s. d.	d.
Ladder Dredges	3,980,125	21,698	38,685 2 4	2'33	1 15 8	55,224 14 11	3'33	4,289,521	26,712	47,775 8 4	2'67	1 15 9	65,332 5 6	3'66
Sand-pump Dredges	2,553,664	11,705	23,169 13 6	2'17	1 19 7	23,555 14 3	2'21	4,469,610	18,656	36,314 2 8	1'95	1 18 11	36,756 14 7	1'97
Grab and Sand-pump Dredges								948,349	7,729	8,124 17 2	2'06	1 1 0	8,839 16 10	2'24
Grab Dredges	359,592	30,209	14,880 14 8	4'15	0 9 10	17,497 5 2	4'87	847,024	32,425	16,874 18 3	4'78	0 10 5	21,421 9 0	6' 7
	7,393,381	63,612	76,735 10 6	2'49	1 4 9	96,277 14 4	3'12	10,554,504	85,522	109,009 6 5	2'48	1 5 6	132,350 5 11	3'01

Country Towns Water Supply.

(VI.)

Report of the Assistant Engineer, Public Works Department.

Sir,

Department of Public Works, Sydney, 12 October, 1897.

I have the honor to furnish the following particulars of the works completed or commenced, and schemes investigated and reported on, during the year ending 30th June, 1897.

Owing to the re-arrangement of duties, I have, during the latter six months, been relieved by Mr. Wade, of the supervision of water-works in progress which, in future, will be described by him.

Water Supplies in progress or completed.

Armidale.

These works were finally completed and have since been handed over in full working. The storage reservoir on Dumaresq Creek, about 8 miles from the town, is formed by a concrete and rubble dam of the usual gravity type, 37 feet high, the capacity being about 110,000,000 gallons, and catchment area $8\frac{1}{2}$ square miles. The supply main is of riveted steel, 9 $\frac{3}{4}$ " diameter, $\frac{1}{8}$ " thick, and conveys the water by gravitation to a concrete service reservoir on the highest hill in Armidale. The streets are reticulated with about 16 miles of cast-iron pipes. Owing to difficulties with the contractor the dam had to be built by day labour.

The water is soft and of an excellent quality, and in every way the works have justified the substitution of this for the Duval Creek scheme originally passed by the Public Works Committee.

Junee.

These works, though actually completed during the previous year, could not, owing to the prolonged drought, be made use of to any extent, and it was not till January, 1897, that sufficient rain fell on the water-shed to cause the dam to partially fill and allow the town and railway to be supplied. It is hoped that heavy rain will soon fall and fill the reservoir, as there is now a severe drain on the comparatively small quantity stored. With a view of adding to the efficiency of the scheme, plans were prepared for bringing in an additional watershed area of 3 square miles. The works as now handed over to the Municipal Council comprise a very large storage reservoir on the main branch of Ulandrie Creek, near Bethungra, formed by a concrete and rubble dam 42 feet high, of the usual gravity type, the capacity being 137,000,000 gallons, and catchment area $5\frac{1}{4}$ square miles; $18\frac{1}{2}$ miles of 7 $\frac{3}{4}$ " steel and iron riveted main leading to a service reservoir of concrete 2 $\frac{1}{2}$ miles from Junee; and about 7 miles of wrought and cast iron supply and reticulation pipes. The scheme is a gravitation one, and was selected in preference to the proposal to pump from the Murrumbidgee.

Owing to its unfavourable situation, Junee is a most difficult town to supply with water, and the cost could not be borne by the ratepayers except for the assistance of the Railway Commissioners who use the water not only at Junee but also at Bethungra, and guarantee a minimum contribution of £1,500 per annum.

Tamworth.

Further investigations were made during the year of sites for dams on Moore Creek, in order to increase the storage capacity to 50,000,000 gallons, with the result that the first proposed site was reverted to, and an arch dam designed. The works, which are now being carried out by day labour at the special request of the Council, will in other respects be in accordance with the details submitted to the Public Works Committee. These comprise a storage reservoir on Moore Creek in the Moonbi Ranges, about 11 miles from the town; a steel supply main, of 7 $\frac{1}{4}$ in. diameter; a concrete service reservoir of 500,000 gallons capacity, near the hospital in Tamworth, and about 19 miles of reticulation. The supply is by gravitation, and owing to the great fall available it will furnish power for electric lighting, and in this and other respects should prove a great improvement on the originally proposed pumping scheme.

Parkes.

Owing to the continued drought, and the consequent failure of the existing drift-bed pumping scheme, it became necessary to provide a gravitation supply. The additional works just completed consist of a concrete and rubble arched dam, of 250 feet radius, and 25 feet high, built across the Billabong Creek, about 11 miles from the pumping station, and connected with the town mains by a steel riveted pipe, 7 $\frac{1}{4}$ inch in diameter. The storage capacity is 63,000,000 gallons, and provision has been made for raising the dam when required. The catchment area is 50 square miles, and the quality of the water is everything that could be desired.

Moss Vale.

Alterations were made to the pumping engines, and an additional boiler provided.

The following schemes were investigated, surveys made, and plans and estimates prepared.

Cootamundra.

This scheme, work on which is about to be commenced, has been rendered necessary by the late drought, which caused the water stored in the drift bed to fail. It will consist of a large storage reservoir on Hardy's Creek, about 2 $\frac{1}{4}$ miles from the present pumping station. The dam will be arched, 200 feet radius, and 30 feet high, and will conserve 136,000,000 gallons. The water will gravitate into the existing service reservoir, through 7 $\frac{1}{4}$ inch steel pipe. By means of branch mains and small "pipe-head" dams, the flow of Coghlan's and Rocky Creeks will be conveyed to the storage reservoir, thereby increasing the catchment area to 4 square miles, which, with the immense storage provided, should be sufficient to keep the town permanently supplied. The estimated cost is £9,130.

Tenterfield

Tenterfield.

This will be a gravitation supply from Curry's Gap Creek, which rises in Mount Mackenzie, close to the town. The dam will be a concrete and rubble arch of small radius, and the storage capacity 47,000,000 gallons. The catchment area is 6 square miles, and the creek a permanent one. The scheme will also provide power to light the town by electricity. Estimated cost, £7,900.

Mudgee.

This work, which is about to be commenced, will also be a gravitation supply, and will be obtained from a storage reservoir formed by a large arched dam on Redbank Creek, close to the town. The total catchment area which it is at present proposed to make use of is $2\frac{1}{4}$ square miles in extent; but as it is very steep it should prove sufficient, in conjunction with the proposed storage of 42,000,000 gallons. Estimated cost, £14,190.

Picton.

This town will be supplied by gravitation from the Bargo River, the storage dam being below the junction of Horne's Creek, about 8 miles away. It has been necessary to go this distance to gain sufficient head to cross the intervening high hills. The dam will be a concrete and rubble arch of small radius, and will store sufficient water to not only supply the town and railway, but also to provide power for electric lighting. Estimated cost, £13,860.

Wollongong.

This scheme, "The Cordeaux," was again modified, in order to bring it within the means of the ratepayers, and, having been approved, will shortly be commenced. The works, which are at present intended to supply Wollongong alone, will comprise an arched dam across the Cordeaux River, forming a storage reservoir of over 60,000,000 gallons capacity; a tunnel, nearly half a mile long, through the range, to "Andrews' Lookout"; a 5-inch steel main to Wollongong, with a relief tank on Garden Hill, and the usual reticulation. Estimated cost, £19,470.

Wellington.

This question was further investigated, and a new gravitation supply surveyed and designed from Bushranger's Creek, where an arched concrete and rubble dam will be constructed, to hold a year's supply. The water will gravitate to the town through $2\frac{1}{4}$ miles of 7-inch pipe, and be distributed through the usual reticulation pipes. Estimated cost, £8,700.

Temora.

Investigations were made, and a scheme recommended which comprises the improvement of the existing Government dam, 3 miles from Temora, and the conveyance of the water, through an earthenware pipe to a service reservoir, whence it will be distributed through reticulation pipes.

The following schemes were investigated and preliminary reports furnished:—

Inverell.

Further investigations were made, and a new site for a dam selected higher up Middle Creek, from which the water will gravitate to the town. The scheme is now about to be surveyed.

Bathurst.

Owing to the exhaustion of the Macquarie drift-beds during the late drought, it was necessary to look for a new source of supply. On investigation a promising source was discovered on Foster's Valley Creek, near Rockley, at sufficient elevation to gravitate over the intervening hills. The Gulf country was also investigated, and a possible source found. Surveys are about to be made of both schemes.

Tumut.

A further examination was made at the request of the Council, and the scheme from Waterfall Creek again recommended. Surveys are about to be made so that accurate estimates can be furnished.

Kiama.

After a careful examination of the country a report was furnished recommending the Fountaindale Creek as the best source of supply. No surveys were however made.

Works not connected with Water Supply.

Hunter River Flood Prevention.

A scheme for the mitigation of floods on the Lower Hunter was devised, and a report presented with plans and estimates. This scheme will consist of a large dam across the Hunter, 10 miles below the junction of the Goulburn, whereby 40,000,000,000 cubic feet of water can be held back till the lower river has time to fall. A geological examination was afterwards made with favourable results, and additional surveys are shortly to be commenced.

EDWD. B. PRICE,
Assistant Engineer, Public Works Department.

Bridge Construction and Renewals.

(VII.)

Report of the Assistant Engineer for Bridges.

I HAVE the honor to report that during the year ended June 30, 1897, 124 new bridges were completed and opened for traffic, the details as to length, &c. of each being given in Appendix "A." With the exception of the lifting span at Swan Hill and the three steel spans at Wallis Creek, the whole of these new bridges are constructed of timber, though in many cases iron or concrete piers and abutments have been used.

The total length of these bridges is 13,483 feet, consisting of 357 plain timber beam spans, 20 timber truss spans, 4 steel spans, 1 steel lift span, and 4 masonry and brick arch spans, the total cost being £85,243 4s. In my last report I referred to the Swan Hill and Inverell Bridges as being in progress, and they are perhaps the most important of those opened for traffic during the year.

Swan Hill Bridge over River Murray has a total length of 381 feet, consisting of four spans of 35 feet each, 2 spans of 91 ft. 6 in., and one steel lifting span (to admit of passage of steamers in flood-time) of 58 ft. 4 in. The cost of this work was £7,625 18s. 11d. (half of which is defrayed by the colony of Victoria), and the bridge is, from a traffic point of view, a very important one, Swan Hill being the most westerly point on the Murray touched by the Victorian railway system.

Prior to the erection of the bridge the traffic was carried by a hand-power punt, owned by a private individual; and, when we consider that upwards of 105,000 sheep and cattle a year crossed at this place, it will be seen how necessary the bridge was. It may be of interest to remark that Swan Hill Bridge is the tenth spanning the Murray, counting from the source. It was opened for traffic in November, 1896.

Inverell Bridge, over the McIntyre River, has three timber truss spans of 110 ft. 3 in. each, on iron cylinders, with four timber beam approach spans, the total length being 440 ft. 9 in., with a 24 feet roadway. It is of the type built in the previous year at Wagga Wagga, and replaces the old and very narrow bridge which carried the traffic at this place. The cost of the bridge was £9,938 18s. 11d., and it was opened for traffic in July, 1896.

In addition to the bridges referred to as completed, contracts were in progress during the year for the erection of sixty-one new bridges, which are not yet completed, particulars of which are given in Appendix "B."

The total length of these bridges is 10,970 feet, and they are made up of 265 plain timber beam spans, twenty-three timber truss spans, and one suspension span, the total completed cost being estimated at £73,461 11s. 9d.

Of these uncompleted bridges the most important are:—

Bridge over Kangaroo River at Kangaroo Valley, consists of one suspended span of 252 feet 9 inches, having a roadway of 18 feet.

The bridge has very fine towers of sandstone, and the span is carried by fourteen steel wire ropes on each side of the bridge, formed into two cables of seven ropes each. The ropes are $4\frac{1}{2}$ inches in circumference, made of plough steel, galvanised, and are each capable of sustaining a tensile strain of 78 tons without fracture.

The work is well in hand, the towers being complete and the ropes in position.

The site is admirably suited for a suspension bridge, for here, where the Moss Vale-Nowra coach road crosses the Kangaroo River, the formation is solid sandstone, offering an excellent anchorage for the cables of the bridge, as well as an unlimited supply of fine stone for the masonry towers. The depth of the gorge in which the river flows also renders the suspension type most economical. The road here is at present carried by a timber truss bridge of considerable age, and now decayed. The new bridge is estimated to cost £8,000.

Bridge over Hunter River at Morpeth consists of three timber truss spans of 110 feet 3 inches each, on iron cylinder piers, thirteen timber beam spans of 35 feet each, and one of 30 feet, making a total length of 815 feet 9 inches, with a roadway of 18 feet. The trusses in this bridge are of a similar type to those at Inverell, but lighter, on account of the comparatively narrow roadway.

The bridge, when completed, will take the place of the hand-power ferry at present carrying the traffic, and is estimated to cost £9,000.

Miscellaneous.

A work of some importance carried out during the year was the protection of the right bank of the Macquarie River at Bathurst above the Denison Bridge, where the river made such inroads as to threaten the line of the Main Western Road. A bank of ti-tri fascines has been completed here, 1,700 feet in length, at a cost of £1,591, and with most satisfactory results.

A new and powerful steam ferry punt for the George's River (Tom Ugly's) is in hand, and will be launched shortly. The principal dimensions are 64 feet long and 32 feet 6 inches in width, and many improvements have been effected in the general arrangements, which will add to the safe and speedy working of the ferry. This punt is estimated to cost £2,366 10s.

Hand-gearied punts were also constructed for the Hawkesbury River, Windsor, Tweed River, and approaches, and caretaker's cottage for the Raymond Terrace punt, at a total cost of £1,829.

It will be seen, then, that taking the number of works completed, and adding the number of those in progress, the total contracts dealt with was 188, representing an expenditure of £163,328 5s. 1d.

Comparing

Comparing the year's work with that of 1895-6, we find the following:—

	1895-6.	1896-7.
Bridges, completed, cost...	£64,287 19s. 10d.	£85,243 4s. 0d.
Number ...	125	124
Length ...	10,218 feet	13,483 feet
Truss spans ...	7	20
Beam spans ...	296	357
Iron or steel spans ...	4	5
Masonry and brick arches ...	...	4
Bridges, in progress, cost ...	£71,201 3s. 0d.	£73,461 11s. 9d.
Number ...	81	61
Length ...	9,191 feet	10,970 feet
Truss spans ...	14	23
Beam spans ...	234	265
Iron or steel spans ...	5	1

From these figures it will be seen that the payments for completed works, and estimated cost of those in progress this year exceed that in 1895-6 by £23,215 12s. 11d., while the length of bridge-work exceeds that of the former year by 5,044 feet. Generally it is difficult to make any comparison of cost from one year to another, owing to the great variety of structures dealt with; but in the two years under consideration practically all the bridges are of timber, and a rough comparison of cost may be made, which shows the average cost per foot run in 1895-6 to be £6 19s. 7d. as against £6 6s. 6d. per foot run in 1896-7, a difference probably due to the large number of beam spans (78) in the Gundagai Viaduct.

E. M. DE BURGH.

Assistant Engineer for Bridges.

NOTE.—The figures given in the above Report, as also in the Returns attached, represent the cost of bridge structures without engineering and incidental expenses.

(VIII.)

BRIDGES completed during the year ending June 30, 1897.

Name of Bridge.	Spans.				Overall Length in feet.	Cost.
	Stone.	Iron.	Truss.	Beam.		
Tantawanglo			I	2	151	£ 1,145 11 2
Wyong Creek.....			I	5	240	1,294 19 9
Molonglo River, Foxlow			I	4	235	1,602 17 2
Numrock Creek			I	2	123	823 19 10
Ellenborough River			2	2	253	1,660 3 2
Charity Creek			I	2	143	791 15 9
Mabbagannah			I	2	163	1,083 19 7
Myrtle Creek			I	4	228	1,125 19 7
Cudgegong Creek			I	.....	93	970 2 11
Inverell			3	4	440	10,058 18 11
Swan Hill		I	2	4	378	7,588 9 7
Walgett			I	9	395	3,053 19 10
Double Creek			I	4	215	1,499 8 5
Fish River at O'Connell.....			2	.....	185	1,340 15 10
Cooradigbee River			I	3	216	1,604 2 1
Wallis Creek		3	.....	.....	95	3,223 19 9
Hutching's Gully	I	.....	.....	.....	30	329 2 2
Little Dark Creek	I	.....	.....	.....	10	129 3 2
Tyndale's Gully	I	.....	.....	.....	25	385 17 0
Vogt's Gully	I	.....	.....	.....	15	212 4 11
Kingswood Culvert		I	.....	.....	5	106 13 5

BEAM BRIDGES.

Alumny Creek.....	.....	.....	.....	3	108	430 6 5
Adelong Creek, Moore's Crossing.....	.....	.....	.....	4	135	741 19 2
Aston Creek.....	.....	.....	.....	1	38	103 9 9
Boomerang Creek .....	.....	.....	.....	1	38	90 3 5
Black Bols Creek .....	.....	.....	.....	1	30	460 15 0
Baronna Creek .....	.....	.....	.....	1	33	254 17 8
Black Gully .....	.....	.....	.....	1	38	345 10 9
Broken Back Creek .....	.....	.....	.....	3	63	168 1 9
Bril Bril Creek .....	.....	.....	.....	2	53	249 2 0
Beardy River, Red Range.....	.....	.....	.....	4	125	586 17 3
Bega River, at Auckland-street .....	.....	.....	.....	8	243	96 9 0
Brewer's Creek .....	.....	.....	.....	2	55	162 0 0
Broadwater Creek .....	.....	.....	.....	3	108	840 15 8
Badgery Creek .....	.....	.....	.....	1	38	148 8 4
Black Creek.....	.....	.....	.....	4	143	545 12 1
Bogan River, at Monkey .....	.....	.....	.....	5	168	1,078 1 11
Baker's Creek .....	.....	.....	.....	1	38	171 11 2
Carrore Creek .....	.....	.....	.....	4	113	695 3 3

Name of Bridge.	Spans.				Overall length in feet.	Cost.		
	Stone.	Iron.	Truss.	Beam.				
Cattai Creek, Manouta				3	108	£	s.	d.
Cedar Party Creek				8	283	546	7	6
Croakers' Water-holes				2	63	1,451	12	3
Cattai Creek, Dural				3	98	226	9	9
Cuttaburra Creek, No. 1, 2, and 3				10	309	399	10	9
Cedar Creek				1	38	2,106	6	6
Catherine Hill Bay				3	80	161	13	11
Colombi Creek				4	131	266	0	8
Carr's Gully				1	35	539	8	10
Cungegong Creek				1	40	195	12	0
Chittaway Creek				2	63	192	10	4
Cosgrove's Creek				1	33	180	3	6
Cabramatta Creek				2	73	125	14	3
Dingo Creek				2	75	228	17	2
Duren's Creek				1	38	537	11	0
Deepwater River				3	106	242	14	3
Deep and Black Creek				6	182	240	9	5
Doctor's Creek				4	123	589	13	4
Eleven-mile Creek				2	63	534	14	1
Fox under the Hill				2	53	308	8	6
Fall's Creek				9	275	151	0	5
Ford's Bridge, Warrego River				2	53	784	11	7
Giant's Creek				4	133	466	6	1
Gundary Creek				3	108	434	12	10
Guilfoyle's Creek				1	28	516	1	10
Hoile's portions, Bridges 1 and 2				2	76	141	5	3
Hyndman's Creek				3	110	344	13	4
Jerrabatgulla				3	108	418	15	9
Ironworks Creek				1	30	379	15	6
Korea Creek				2	78	318	11	5
Kellyville, Brian's Bridge				3	65	227	8	5
Kelagher's Creek, at Wes Waa				1	38	261	4	5
Lachlan River, at Inglewood				5	155	194	8	2
Lachlan River, at Nanawa				6	215	914	3	11
Lett River, Foot Bridge				2	73	1,423	12	1
Little Hartley Creek				1	25	101	13	3
Little Malabar				2	65	324	15	7
Lang's Creek				1	38	130	16	0
M'Leod's Creek				1	38	229	9	9
Manners-street, Tenterfield				1	38	142	4	8
Marom Creek				5	168	1,054	17	4
Molle's Main				3	93	311	19	6
Mehi River				1	33	223	13	9
Mooki River				4	123	819	9	0
Muckerawa Creek				4	131	569	3	11
Marra Creek				2	57	320	5	2
Murrumbidgee Road at Gobarralong				7	209	1,014	19	6
Narravalla Creek				11	333	1,878	15	3
Noyeau Creek				3	123	342	18	0
Nepean River—Blaxland's Crossing				1	25	193	6	0
Old Man Creek				8	203	1,657	17	0
Oolong Creek				4	133	471	4	0
Pambula River, at Pambula				4	125	621	2	10
Page's River at Blandford				3	108	326	12	0
Pearce's Creek at Alstonville				4	125	428	13	4
Pitt Town, No. 1				3	83	392	2	6
Quirindi Creek Foot-bridge				2	73	241	4	5
Rhone's Creek				3	78	63	11	6
Rope's Creek				2	73	206	7	6
Roberts' Creek				3	108	413	3	4
Six-mile Creek, Bombala				1	38	145	16	8
Spickett's Creek				1	33	160	6	6
Sandy Creek, Tumut				1	33	103	14	8
Sandy Creek (near Dora Creek)				1	33	178	5	5
Saucy Creek				4	143	421	18	0
Saltwater Creek				6	185	786	0	8
Sugarloaf Creek				3	100	552	1	6
Snakes Creek				2	55	203	4	3
Seven Hills Swamp, No. 1				3	95	395	2	6
Do do No. 2				3	80	302	4	6
Taylor's Creek				2	55	202	5	8
Thalaba Creek				5	153	410	18	11
Two-mile Creek, at Bigga				4	133	626	3	9
Tucki Creek				1	38	210	19	3
Waring Creek				1	38	196	5	7
Wongiwooble				3	108	58	15	0
Wakool River				1	33	154	18	5
Warrambooli, Walgett, No. 1				7	178	450	10	2
Do do No. 2				7	215	1,163	5	10
Do do No. 3				7	215	1,163	5	10
Wilber Creek				2	63	306	3	4
Woolway Creek				5	145	1,272	17	11
Weilmoringle				4	105	792	1	10
Yarrakool				3	87	240	2	9
Yardley's Creek				1	23	116	18	2
Complete Total	4	5	20	357	13,483	85,243	4	0

BRIDGES in progress on June 30th, 1897.

Name of Bridge.	Spans.				Overall length in feet.	Contract Cost.
	Stone.	Iron.	Truss.	Beam.		
South Arm, Bellingen River.....				3	89	£ s. d. 469 11 3
Whitton Ferry				5	128	500 0 0
Smith's Creek				3	108	397 0 0
Coalbaggie Creek				0	203	697 14 3
Scotch Creek				1	38	199 19 6
Oakey Creek				1	38	288 12 2
Slaughterhouse Creek.....				1	28	140 3 0
Mountain Creek				3	93	216 0 0
Tuross Estuary, Trunkatabella.....				5	158	449 13 10
Gunning Creek				3	78	469 4 1
Farmer's Creek				2	73	348 8 9
Telligerry.....				2	73	284 18 11
Tavelwainde Creek.....				3	93	414 5 0
Reedy Creek				2	63	338 6 0
Borambil Creek, Cassilis				2	63	284 0 0
Badger Creek				1	38	67 10 0
Byron Creek				3	98	396 1 8
Biree River, Mullen Plains				5	128	898 10 6
Thompson's Creek				1	38	182 14 0
Eucumbene River				2	73	398 0 0
Deviation, at Pearce's.....				1	33	116 0 6
Lodden River				5	105	696 14 6
Stanhope Creek				2	73	296 10 0
Frazer's Creek.....				1	33	165 0 0
Robinson's Creek				2	73	299 9 9
Waterhole Creek.....				2	59	331 2 6
Connor's Creek				3	93	410 0 0
Willow Creek				2	53	331 9 11
Bokhara River				5	128	847 1 0
Duck Creek				4	143	759 15 7
Borambil Creek, Quirindi.....				2	53	230 0 0
Radley Creek				4	143	469 4 5
Adelong Creek.....				2	63	472 14 0
Oolong Creek				4	123	621 1 0
Gundagai Bridge.....				78	2,720	12,591 15 6
Nammer's Creek.....				4	143	479 4 11
Yerambah Bridge				5	153	1,372 14 0
Warrana Creek				5	145	552 0 0
Melville Ford, Hunter River				7	248	782 17 0
M Intyre River, at Yetman				4	123	197 0 0
Bow Bridge				7	212	612 1 2
South Creek.....				7	203	852 1 6
Jones' Creek				2	53	199 4 0
Noyeau Creek				1	23	191 6 3
Gun Creek				2	53	200 0 0
Bullacodya				2	59	184 16 10
Iron Pot Creek				2	53	377 0 0
Mount Hunter Creek.....				4	123	450 0 0
Albury Bridge.....				2 3	360	6,668 10 2
Green Gully				1	73	743 19 6
Sandy Creek				1	265	1,396 2 6
Molonglo River, at Burbong.....				1	275	1,907 0 0
Lower Creek, Kempsey				2	185	1,756 3 11
Bargo River, at Picton				1	210	1,375 17 9
Farbis Creek				1	185	1,013 7 2
Paterson River, at Vacy				2	215	1,694 17 5
Morpeth Bridge				3	14	7,764 0 0
Berrima Bridge				3	2	1,900 0 0
Stonequarry Creek, at Picton				3	275	3,602 15 8
Turon River, at Wallaby Rocks				3	353	4,097 0 0
		ft.				
Kangaroo River, Suspension Bridge.....	1	252	.....	.....	252	6,985 0 0
		1	23	265	10,970	32,558 17 8 40,902 14 1
						£73,461 11 9

Water Conservation and Irrigation.

(IX.)

Report of the Principal Assistant Engineer.

The Water Rights Act.

About the beginning of the official year under review the Water Conservation Branch was transferred from the Department of Mines to the Department of Works. By far the most important matter connected with this branch which was then being dealt with was the Water Rights Bill. This Bill was then being considered in Parliament and it was subsequently passed, the date on which it came into operation being 1st November, 1896. In regard to the importance and utility of the Water Rights Act, it may be mentioned that a return specially prepared by the Stock Department showed that the total outlay by private enterprise on dams in creeks and rivers throughout the colony has been considerably over six and a half millions sterling. Previous to the passing of the Act these dams existed on sufferance only, but the charge of all rivers and creeks is now vested in the Minister, who has power under the Act to license dams and other works after due inquiry, or to order their removal if their existence is objectionable. Persons who object to works in creeks or rivers cannot now take the law into their own hands and destroy the works as has frequently been done hitherto, but must appeal to the Minister or state their objections at the inquiries regarding applications for licenses.

The number of applications for licenses under the Water Rights Act which have been received, examined, and registered is 471, but in addition to these, 47 applications for licenses for existing works were received too late to be dealt with. The Act specified that applications for such licenses should be submitted to the Minister before 1st February, 1897. This limit proved too short for applicants in distant localities, and it had the effect of causing a temporary block in the office, as the applications had all to be examined and noted on the maps before being forwarded for inquiry.

A considerable number of the applications received relate to pumping engines. In the Hay Land Board District, the total number of applications received within the prescribed time was 136, of which 11 were for pumping plants. The corresponding numbers for the Bourke District are 94 and 5; for the Dubbo District, 65 and 1; for the Forbes District, 45 and 3; and for the Wagga Wagga District, 56 and 5. In addition to applications relating to existing works, several have been received for proposed works of considerable importance.

Inquiry by Colonel Home, R.E.

During the greater part of the year under review my time has been almost entirely taken up with the administration of the Water Rights Act and attending on Colonel F. J. Home, R.E., who, as mentioned in the official report of the Public Works Department of last year was specially engaged by the Government to inquire into and report on water conservation and irrigation throughout New South Wales. The value of the comprehensive surveys which were made in connection with possible schemes for water conservation has been strongly in evidence in the course of Colonel Home's inquiry. All the rivers in the western river system, and all the important lakes have been included in the great network of levels, and a series of gaugings have been made to show the discharge of the principal rivers. Colonel Home has visited all the places of special interest in regard to his inquiry, and it is probable that these inspections, and his examination of the results of the surveys, will enable him to complete his report within the twelve months for which he was specially engaged. Only a few surveys and investigations had to be specially made for Colonel Home, among the more important being the detail survey and plan of the Tantangara Reservoir site on the Upper Murrumbidgee, the completion of the detail survey and plan of the Lake Coolacumpama Reservoir site on the Lower Murrumbidgee, the detail survey for a new offtake for the proposed Murrumbidgee Southern Canal, and approximate surveys of proposed sites for storage reservoirs on the Murray, Murrumbidgee, Lachlan, and Macquarie Rivers.

Miscellaneous Works.

As the consideration of all important projects had to stand over till after Colonel Home's inspection, no large works were entered on during the year. My time being almost entirely divided between attending on Colonel Home and dealing with questions under the Water Rights Act, Mr. Wade was entrusted with the chief supervision of works under construction, the principal of which were the Bourke Lock and Weir, the Middle Billabong Weir, and the Wentworth Irrigation Works. The first of these works, of which a photograph is appended, has been completed, and acts very satisfactorily. The completion of the works at the Middle Billabong Weir, as at the Gin Gin Weir on the Macquarie, has been delayed owing to the desirability of bringing them under the provisions of the Water Rights Act. The Wentworth Irrigation Works are the first of their kind carried out by the Government in this colony. On their completion the irrigable area will be let in suitable blocks, and there is good reason to anticipate that the work will be remunerative.

The minor works completed in the year under review were the tanks for the water supply to the mining settlements at Fifield and Gilgunnia, the weir and crossing at Angledool, the improvements of the channel of the Middle Billabong, and the cutting for conducting the water diverted by the Warren Weir into the Gunningbar and Cookamurra Creeks.

Among matters investigated and reported on were proposals for irrigation works at Narromine, the practicability of irrigation from Lake Cudgellico, the drainage of the Araluen Valley, a proposed weir at Hillston, the modified scheme for irrigation at Hay, the improvement of effluent creeks below Warren, and the drainage of the Tuckian Swamp, Richmond River.

Staff

Staff Employed.

The regular field staff in connection with the branch includes, in addition to Mr. Wade, Mr. Blomfield, Assistant Engineer, and Mr. Granter, surveyor. Two of the office staff have been employed on field duty for some time—Mr. Seaver in connection with information required by Colonel Home, and Mr. Amphlett in assisting Mr. Wade and in taking river discharges.

During the greater part of the official year, Mr. Marshall, the chief draftsman, had eight draftsmen under him, including Mr. Seaver and Mr. Amphlett; but at the end of April an additional draftsman was appointed. The preparation of plans and marking on levels in connection with Colonel Home's inspections, and the noting of sites of works for which applications for licenses were received, involved a large amount of work for the office staff. In addition to the plans of works already referred to, the staff have had during the year the preparation of plans relating to a number of works and proposals for water supply and drainage, including subdivision for the Wentworth irrigation area, lands which will be affected by the Middle Billabong weir, drainage of the Gwydir District, lands required for resumption in connection with various water supply works, diagrams showing heights and discharges of rivers, &c.

Expenditure.

The amount expended from the Water Conservation Vote during the year under review was £32,647 9s. 3d., the two most important items being the Bourke lock and weir and the Middle Billabong weir.

H. G. McKINNEY,
Principal Assistant Engineer, Water Conservation Branch.

Surveys, Soundings, and Borings.

(X.)

THE work of the surveying staff of the Public Works Department during the financial year 1896-97 has been to a large extent interfered with by the alterations necessitated by the reorganisation of the Service, but towards the end of the term matters began to settle down to their normal condition, and work is now progressing satisfactorily. This desirable state of affairs is largely due to the energy and ability shown by the whole of the staff, who have succeeded in keeping pace with the work of the Department under exceptional difficulties.

The opportunity was taken, while the reorganisation proceeded, to introduce some radical changes in the methods of carrying out the surveying work and recording the results, and, so far as it is possible to judge, the new system works satisfactorily. In August, 1896, the whole of the survey work of the Department, with the exception of the detail work of the Sewerage Construction Branch, was placed under the control of the present Chief Surveyor, and it has thus become possible to introduce a more complete and harmonious system of working. The nature of the duties pertaining to this branch has prevented my devoting much time to the more scientific questions demanding attention, but one or two important matters have been commenced and carried to a successful issue. The most important of these was the conference of representatives of the Government departments to determine upon a standard datum for levels in New South Wales, which was called by the Minister for Public Works in December, 1896. A report of this conference has already been printed, and it is perhaps sufficient to say that, as a result, all levels in future taken by Government officers will be referred to one common datum. The advantages of this reform will be more apparent as years roll on.

A sum of £400 has been placed on the Estimates for 1897-8 to provide and fix a number of tide-gauges at various places on the coast. This fulfils a long-standing want, not only from a hydrographical standpoint, but the data provided will be of material assistance to the engineer in the designing of new harbours and improving the entrance to our rivers.

In November, 1896, the sum of £50 was appropriated for the purpose of fixing standard benchmarks in Sydney Harbour to facilitate the work of surveyors in defining mean high-water, which, by the common law, is the boundary of all land having a frontage to tidal water. This work is being carried out as opportunity offers, but progress has necessarily been slow on account of the limited time at our disposal.

During the year the following surveys have been carried out:—

Harbour Surveys.

Darling Island soundings and borings.	Clarence River entrance (plan drawn).
Newcastle, from entrance to Fullerton Cove (plan drawn).	Moruya River, from Malabar Creek to Moruya.
Spectacle Island (plan drawn).	Camden Haven Inlet, from entrance to Laurieton.

Wharf Surveys.

Tuggarah Lake.	Bourke.	Brooklyn.
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Water Supplies.

Wollongong.	Tenterfield.
Parkes.	Junee (supplementary supply).
Tamworth.	Picton.
Cootamundra.	Temora.
Mudgee.	

Bridges.

North Shore (Dawes' Point to McMahon's Point).	Patterson River at Hinton.
Tom Thum Lagoon.	" " Vacy.
Wheeeney Creek.	Narromine.
Blaxland's Crossing (Nepean River).	Borambil Creek.
Wyang Creek.	South Creek.
Stone Quarry Creek, Picton.	Moruya River at Moruya.
Parramatta River at Newington.	Patterson River at Murwillumbah.
Patterson River at Dunmore.	Queanbeyan River at Queanbeyan.

Water Conservation.

Tuckian Swamp, Gin Gin Weir.

General Surveys.

Roselle Bay resumptions.	Fitzroy Dock.
Pymont "	Admiralty House grounds.
Bourke flood prevention.	Port Macquarie.
Parramatta Road (levels for wood-blocking).	Cook's River improvements.
Shea's Creek resumptions.	Berry's Bay.
Ryde to Concord Punt.	Port Macquarie—quarry site.
Tom Ugly's Point Punt.	

Reclamation Limit Line Inspection.

One hundred and two cases have been inspected and reports sent in.

GERALD H. HALLIGAN,

The Engineer-in-Chief for Public Works.

Chief Surveyor,
Public Works Department.

30 November, 1897.

RETURN

(XI.)

RETURN of Expenditure on Public Works carried on by Harbours and Rivers Branch from 1st July, 1896, to 30th June, 1897.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com-menced.	If Finished, actual amount of Expenditure.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
WATER SUPPLY—						
Providing Country Towns	Constructing...	Loans.....	1879	£ s. d.	£ s. d.	£ s. d.
Duplicate rising Main, Walka to Buttai	"	"	1896	.....	975,065 16 3	21,930 9 10
Reservoir, Potts' Hill	"	"	1888	.....	20,386 2 0	20,333 17 3
Laying Second Pipe Line between Potts' Hill and Crown-street	"	"	"	160,182 13 3	.....	.....
Sydney	"	"	1880	2,277,502 19 7	.....	.....
Centennial Park Reservoir	"	"	1895	.....	22,941 1 4	12,089 6 8
DREDGE SERVICE—						
Excavation of Silt by Dredges.....	Annual Service	Con. Rev. ...	"	96,159 5 5	.....	.....
"	"	"	1896	.....	79,255 15 0	79,255 15 0
Tugs and Punts for Dredge Service	"	"	1895	2,009 15 3	.....	.....
"	"	"	1896	.....	391 1 0	391 1 0
Dredge Plant for Richmond and other Northern Rivers	Constructing...	Loans.....	1883	24,998 7 10	.....	.....
Dredge and Punts for Myall River	"	"	1888	8,002 11 9	.....	.....
Appliances for Reclaiming Land by Sand Dredges	"	"	1889	.....	55,213 0 0	13 11 5
Dredge and Plant for service first at Nambucca... ..	"	"	1890	7,991 18 7	.....	.....
Landing Silt and forming Ground	Annual Service	Con. Rev. ...	1895	6,314 1 7	.....	.....
"	Improving	Loans.....	1896	.....	6,968 2 6	6,968 2 6
Reclamation and Dredging, including cost of resumption of Land	"	"	1893	.....	95,998 0 2	a.....
Self propelling Steam Sand-pump Dredges for deepening shallow Bars	Constructing...	"	1897	.....	3 9 0	3 9 0
Towards fitting Steam-steering Gear and Electric Light on Dredges and "Thetis" .....	"	"	"	.....	116 11 0	116 11 0
Conversion of Grab Dredge into a Sand-pump Dredge.....	"	"	1895	.....	25,229 12 6	15,407 3 3
Repairs plant used in connection with Reclamation Works, &c.....	Annual Service	Con. Rev. ...	1896	.....	80 13 0	80 13 0
SYDNEY DISTRICT—						
Extension of Darling Harbour Wharf, including cost of Compensation for Land, &c.....	Constructing...	Loans.....	1881	.....	484,007 15 9	6,672 19 8
White Bay Reclamation	Improving.....	Loans & Con. Rev.	1886	.....	12,250 16 8	1 2 3
Circular Quay Improvements	Constructing...	Loans.....	1888	.....	92,721 11 6	4,910 5 10
Woolloomooloo Bay Improvements .....	"	"	"	.....	26,702 11 5	13,743 0 3
Cook's River and Shea's Creek Reclamation and Dredging	Improving	Loans & Con. Rev.	1887	.....	175,237 8 2	37,942 5 5
Admiralty Wharf, Woolloomooloo.....	Constructing...	Loans.....	1889	1,490 15 1	.....	.....
Long Cove Reclamation	Improving	Loans & Con. Rev.	1890	.....	46,140 3 4	2,407 6 4
Naval Stations, Garden Island, &c.....	"	Loans.....	1884	.....	306,194 14 8	5,732 3 1
Sea Wall, Coogee Bay	Constructing...	Con. Rev. ...	1890	4,893 1 11	.....	.....
Rebuilding Stone Dyke-wall, Rushcutters' Bay... ..	"	"	1889	3,799 19 9	.....	.....
Reclamation, Careening Cove and Neutral Bay... ..	Improving.....	Loans	1890	.....	12,011 17 6	9 16 0
Improvements, Cowper Wharf, Woolloomooloo Bay	"	"	1889	6,949 12 3	.....	.....
Cargo Shed, Woolloomooloo Bay	Constructing...	Con. Rev. ...	1891	2,903 4 3	.....	.....
Construction of Jetties, foot of Erskine-street ...	"	Loans.....	"	8,217 6 9	.....	.....
New Jetty and Shed, Circular Quay, and extending old A.S.N. Co.'s berth	"	"	1892	.....	27,591 1 8	6,151 13 0
Wharf, White Bay	"	"	1894	2,585 3 4	.....	.....
Goods Shed, eastern side Circular Quay	"	"	1895	.....	1,411 2 5	.....
Rushcutters' Bay, northern extension of reclamation	Improving	"	"	.....	3,990 1 4	2,123 19 6
Rushcutters' Bay, Completion, Sea-wall	"	"	1896	.....	2,093 12 10	2,093 12 10
Straightening Wharf, Woolloomooloo Bay, &c... ..	Constructing...	"	1895	.....	4,991 18 4	1,749 17 4
New Wharf, Manly Beach	"	"	"	3,006 15 1	.....	.....
Painting, &c., Passenger and Cargo Sheds, Sydney Harbour	Improving.....	Con. Rev....	1896	.....	723 10 0	606 1 10
Wharf, foot of Augustus-street, Leichhardt.....	Constructing...	"	1895	413 2 10	.....	.....
Extension, Covering over Pontoon Wharf, Erskine-street	"	"	1896	150 0 0	.....	150 0 0
Improvements to Cook's River, near Tempe, providing for discharge of Flood Waters	Improving.....	Loans	1897	.....	1 1 0	1 1 0
HUNTER RIVER AND NEWCASTLE DISTRICT—						
Wharf and Shipping Appliances, Newcastle, including steam Cranes, Newcastle Wharf. ..	Constructing } & improving }	Loans & Con. Rev.	1858	.....	361,261 18 3	30,872 17 4
Protection of Banks, Hunter River, at West Maitland	Constructing...	Con. Rev. ...	1866	41,331 16 1	.....	.....
Expenses, Rocket Apparatus, Newcastle	Annual Service	"	1895	300 0 0	.....	.....
"	"	"	1896	.....	214 19 0	214 19 0
Removal of Rocks, Newcastle Harbour	Improving.....	Loans	1858	18,576 10 4	.....	.....
Repairs, Newcastle Wharfs	Repairs	Con. Rev. ...	1887	12,966 13 5	.....	.....
" Northern Breakwater, Newcastle.....	"	Loans & Con. Rev.	1883	9,695 15 9	.....	.....
Reclamation, North Harbour, Newcastle	Improving.....	Loans.....	1894	.....	4,742 17 11	1,364 12 7
Expenses, Special Services, Tugs unconnected with Dredging, and for Rocket Apparatus, Newcastle ..	Annual Service	Con. Rev. ...	1895	800 0 0	.....	.....
New Lighter for Newcastle Harbour	Constructing...	Loans	1896	.....	584 6 8	564 10 9
Maintenance, Newcastle Harbour Works	Maintenance...	Con. Rev. ...	"	519 18 2	.....	.....
"	"	"	"	.....	2,536 7 8	2,536 7 8
Extension and Reconstruction, Queen's Wharf... ..	Constructing...	Loans	"	4,700 0 0	.....	4,700 0 0
Pile Beacon, to replace Lightship, Newcastle ...	"	Con. Rev. ...	1897	447 18 4	.....	447 18 4
LAKE MACQUARIE DISTRICT—						
Improvements at Entrance	Improving.....	Loans & Con. Rev.	1877	92,634 6 7	.....	.....
CLARENCE RIVER DISTRICT—						
Improvements at Heads	Constructing	"	1862	.....	301,431 16 4	12,370 0 8

(a) Under Vote for Cook's River and Shea's Creek Reclamation. £73,763 19s. 9d. expended from Vote for Reclamation and Dredging.

Public Works carried on by Harbours and Rivers Branch—continued.

Work, and where situate.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com-menced.	If Finished, actual amount of Expenditure.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
				£ s. d.	£ s. d.	£ s. d.
CLARENCE RIVER—continued.						
Woolgoolga Jetty	Constructing...	Loans	1889	13,487 16 10	.....	.....
Coff's Harbour Jetty	"	"	"	12,596 12 8	.....	.....
Removal of Reefs, Maclean	Improving	"	1896	.....	869 17 0	869 17 0
Removal of Rocks, South Arm	"	Con. Rev. ....	"	.....	600 0 0	600 0 0
Dredge Dock	Constructing...	Loans	1897	.....	9 8 3	9 8 3
HASTINGS RIVER—						
Wharf, Wauchope	Constructing...	Con. Rev.	1896	.....	130 7 3	*129 7 9
MANNING RIVER—						
Improvements of River	Improving	Loans	1895	.....	17,332 10 4	10,812 18 1
TRIAL BAY DISTRICT—						
Harbour of Refuge	Constructing...	Loans & Con. Rev.	1874	.....	124,882 7 11	4,331 10 11
WOLLONGONG DISTRICT—						
Deepening Harbour	"	Loans	1870	.....	5,680 17 5	.....
Maintenance of Harbour Works	Maintenance...	Con. Rev.	1895	136 1 0	.....	.....
"	"	"	1896	.....	475 0 6	475 0 6
Arbitration case, T. W. Hungerford v. Minister for Works	"	Loans	1896	.....	8,051 15 5	8,051 15 5
RICHMOND RIVER—						
Improving River	Improving	Loans & Con. Rev.	1878	.....	193,350 8 6	20,146 12 3
Byron Bay Jetty	Constructing...	Loans	1884	.....	16,202 14 6	789 5 11
Improving Richmond River and Tributaries	Annual service	Con. Rev.	1895	1,840 13 0	.....	.....
"	"	"	1896	.....	2,046 18 9	2,046 18 9
Flood Relief Works, Richmond River, via Evans River	Improving	Loans	1895	.....	7,655 19 3	2,629 19 10
Snagging Tributaries Richmond River	"	"	1894	.....	3,592 2 3	1,313 14 10
Wharf at Wyrallah	Constructing...	Con. Rev.	1895	320 10 11	.....	.....
" Broadwater	"	"	"	341 11 11	.....	.....
Dock	"	Loans	1897	.....	3 5 8	3 5 8
NAMBUCCA RIVER—						
Clearing Obstructions	Improving	Con. Rev.	1879	3,388 9 9	.....	.....
Wharf at Bowra	Constructing...	"	1895	588 15 8	.....	559 14 11
Improving Entrance	Improving	Loans .....	"	.....	3,502 2 2	3,214 14 0
TWEED RIVER—						
Improving Navigation, Brunswick River	"	"	1889	.....	1,168 4 7	.....
Improvements, Tweed River	"	"	1890	.....	30,363 1 2	6,086 6 2
Snagging Tributaries	"	Con. Rev.	1896	158 0 10	.....	.....
" .....	" .....	" .....	"	.....	64 14 1	64 14 1
MACLEAY RIVER—						
Improving Entrance	"	Loans & Con. Rev.	"	.....	10,995 0 1	9,232 13 1
" Bellinger River	"	"	1890	.....	22,222 19 10	5,546 0 2
MORUYA RIVER—						
Improving Entrance, Fascino Banks, &c.	"	"	1888	.....	14,783 8 8	.....
MURRAY, MURRUMBIDGEE, AND DARLING RIVERS.						
Improving	"	"	1856	.....	204,134 2 0	642 12 9
COCKATOO ISLAND—						
Fitzroy Dock	Constructing & in use	"	1848	33,590 5 3	.....	.....
Dock Establishment, Contingencies	Annual Service	Con. Rev.	1895	4,691 12 5	.....	.....
" Salaries	"	"	"	800 0 0	.....	.....
" Contingencies	"	"	1896	.....	5,079 12 6	5,079 12 6
Machinery	"	"	1883	12,314 0 0	.....	.....
New Dock, Biloela	Constructing...	Loans	1881	282,270 10 8	.....	.....
Boiler Shop and Store, Fitzroy Dock	"	Con. Rev.	1895	782 1 8	.....	.....
"	"	Loans	1896	.....	1,530 9 4	1,530 9 4
Maintenance, Electric Light	Maintenance...	Con. Rev.	1895	381 6 10	.....	.....
"	"	"	1896	.....	225 0 7	225 0 7
MISCELLANEOUS.						
Harbour and River Surveys	Annual Service	"	1895	1,868 9 4	.....	.....
"	"	"	1896	.....	557 16 0	557 16 0
Incidental Expenses to Wharfs, Bridges, &c.	"	"	1895	11,719 16 1	.....	.....
"	"	"	1896	.....	12,298 13 2	12,298 13 2
Improving Navigation of Hawkesbury River	Improving	Loans	1889	891 14 4	.....	.....
Lighthouse, Point Perpendicular	Constructing...	"	1890	4,381 18 1	.....	3,894 14 4
Wharf, Kendall, Camden Haven	"	Con. Rev.	1894	281 13 8	.....	252 6 5
Improvements to Entrance, Camden Haven	Improving	Loans	1896	.....	97 6 8	97 6 8
" Cape Hawke	"	"	1894	.....	32 1 5	21 7 5
Wharf and Crane at Bourke	Constructing...	"	1897	.....	5 0 6	5 0 6
Jetty, Eastern Side, Fort Macquarie	"	Con. Rev.	1896	.....	270 18 6	†270 18 6
Tuggerah Lakes Jetty .....	" .....	" .....	"	.....	0 10 3	0 10 3
Establishment Salaries	Annual Service	" .....	"	.....	2,805 0 0	2,805 0 0
Salaries, Equipment, Allowances, Travelling Expenses, Rents, Cleaning, Incidental, &c. ....	" .....	" .....	"	.....	10,713 4 7	10,715 4 7
Repairs, Kiama Harbour Works .....	" .....	" .....	"	.....	185 7 1	185 7 1
Tug, "Ganymede," Master and Driver .....	" .....	" .....	"	.....	316 3 10	316 3 10
Compensation to the Widows of the late James Thain, Captain Alexander, Martin Gunner, and George Thorpe	Compensation..	" .....	"	.....	366 18 0	366 18 0
Expenses of Tugs on Special Service	Annual Service	" .....	"	.....	559 7 7	559 7 7
Wharfs, Erection, Repairs, and Renewals .....	" .....	" .....	"	.....	1,970 9 5	1,970 9 5
Work done for other Departments .....	" .....	" .....	"	.....	.....	13,595 3 10
Rushcutters' Bay Park Trustees .....	" .....	" .....	"	.....	.....	9 19 11
Gratuities to Retrenched Officers	"	Con. Rev.	1896	.....	.....	65 19 1
Total				£ 3,287,098 9 4	3,858,897 13 7	426,336 9 11
TOTAL EXPENDITURE FOR THE YEAR.				£ s. d.		
Harbours and Rivers Revenue				44,092 4 9		
Dredge Service Revenue				79,255 15 0		
Harbours and Rivers Loans				289,393 6 4		
Services of other Departments				13,595 3 10		
				£ 426,336 9 11		

* Paid from Incidental Expenses.

† £133 18. 3d. paid from Incidental Expenses.

HARBOURS and Rivers Expenditure.

Year.	Loan.	Revenue.	Other Departments.	Total.
				£ s. d.
Previous to 1859 .....	.....	.....	.....	95,765 10 8
1859 .....	.....	.....	.....	16,183 19 4
1860 .....	.....	.....	.....	31,134 1 11
1861 .....	.....	.....	.....	52,314 4 9
1862 .....	.....	.....	.....	84,280 19 5
1863 .....	.....	.....	.....	53,318 16 11
1864 .....	.....	.....	.....	80,830 9 5
1865 .....	.....	.....	.....	58,347 6 8
1866 .....	.....	.....	.....	53,678 15 0
1867 .....	.....	.....	.....	70,840 7 10
1868 .....	.....	.....	.....	83,204 11 10
1869 .....	.....	.....	.....	81,279 12 9
1870 .....	.....	.....	.....	65,675 14 5
1871 .....	.....	.....	.....	67,425 7 11
1872 .....	.....	.....	.....	67,121 3 9
1873 .....	.....	.....	.....	111,160 12 6
1874 .....	.....	.....	.....	137,749 17 1
1875 .....	.....	.....	.....	222,913 19 6
1876 .....	.....	.....	.....	175,189 8 4
1877 .....	.....	.....	.....	186,916 18 0
1878 .....	.....	.....	.....	218,001 4 11
1879 .....	.....	.....	.....	247,110 1 10
1880 .....	.....	.....	.....	279,913 18 7
1881 .....	.....	.....	.....	313,217 0 1
1882 .....	.....	.....	.....	596,332 7 4
1883 .....	.....	.....	.....	733,620 0 0
1884 .....	.....	.....	.....	698,458 6 2
1885 .....	.....	.....	.....	689,171 14 10
1886 .....	.....	.....	.....	817,631 16 11
1887 .....	.....	.....	.....	596,743 8 8
1888	295,962 14 7	139,695 10 11	.....	435,658 5 6
1889	554,521 13 10	148,676 16 1	.....	703,198 9 11
1890	397,951 11 5	175,837 18 7	.....	573,789 10 0
1891	449,527 18 1	211,206 19 3	.....	660,734 17 4
1892	304,807 17 11	237,147 13 6	.....	541,955 11 5
1893	235,614 11 9	169,168 19 11	.....	404,783 11 8
1st January, 1894, to 30th June, 1895	372,698 12 5	229,205 2 1	.....	601,903 14 6
1st July, 1895, to 30th June, 1896	231,789 0 0	152,120 8 5	.....	383,909 8 5
1st July, 1896, to 30th June, 1897	289,393 6 4	123,347 19 9	13,595 3 10	426,336 9 11
				£11,717,801 16 0

RETURN of Expenditure on Public Works carried on by Water Conservation Branch, from 1st August, 1896, to 30th June, 1897.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expenses is defrayed.	When Commenced.	If Finished, actual amount of Expenditure.	If Unfinished, amount of Expenditure to 30th June, 1897.	Amount Expended.
				£ s. d.	£ s. d.	£ s. d.
Angledoon Weir, Narran River	Constructing ..	Loans .....	...	.....	.....	388 10 5
Araluen Drainage Works	Survey .....	" .....	...	.....	.....	84 0 7
Bourke Lock and Weir	Constructing ..	" .....	...	.....	.....	12,490 11 0
Bathurst Experimental Irrigation Farm	Survey .....	" .....	...	.....	.....	6 14 2
Colonel F. J. Home, Fees and Expenses .....	.....	" .....	...	.....	.....	1,334 15 3
Coopernook Report on Big Swamp .....	.....	" .....	...	.....	.....	4 16 9
Duck Creek, Improvement	Survey .....	" .....	...	.....	.....	8 16 0
Erection of Pump, Oxley	Construction ..	"	...	7 19 9	7 19 9	7 19 9
Darling River Survey .....	.....	" .....	...	.....	.....	31 17 5
Fifield Water Supply	Constructing ..	" .....	...	.....	.....	53 10 2
Gin Gin Weir .....	" .....	" .....	...	.....	.....	1,823 4 1
Gilgunnia Water Supply .....	" .....	" .....	...	.....	.....	426 7 2
Gunningbar to Cookamurra and Crooked Creeks, Water Supply .....	" .....	" .....	...	.....	.....	723 4 4
Gwydir River Drainage	Survey .....	" .....	...	.....	.....	503 15 11
Incidental Expenses .....	.....	Con. Rev. & Loans ..	...	.....	.....	452 4 1
Island Creek Weir	Repairs	Loans .....	...	.....	.....	15 6 9
Irrigation, Macquarie, at Narromine	Survey .....	" .....	...	.....	.....	0 6 9
Locking of the Darling .....	" .....	" .....	...	.....	.....	9 6 8
Middle Bil'abong, Weir and Channels	Constructing ..	" .....	...	.....	.....	5,190 4 4
Land Fees and Costs .....	.....	" .....	...	.....	.....	7 19 3
Lake Cudgellico Flood-gates	Repairs .....	" .....	...	.....	.....	12 9 6
Major's Creek Water Supply	Survey .....	" .....	...	.....	.....	0 4 6
Mulgoa Irrigation Works	Report, &c. ....	" .....	...	.....	.....	27 13 6
Reservoir Sites on Lachlan and Macquarie	Report .....	" .....	...	.....	.....	2 8 6
River Gauging .....	" .....	" .....	...	.....	.....	182 11 7
Salaries .....	.....	" .....	...	.....	.....	4 562 15 11
Surveys in connection with Colonel Homes' Tours	Report .....	" .....	...	.....	.....	52 17 7
South Bermagui Lagoon Embankment—Bermagui Water Supply	Constructing ..	" .....	...	.....	.....	53 4 3
South Murrumbidgee Canal	Survey .....	" .....	...	.....	.....	14 9 7
Tuckian Swamp Drainage .....	" .....	" .....	...	.....	.....	86 16 7
Tantangara Basin, Upper Murrumbidgee .....	" .....	" .....	...	.....	.....	199 18 3
Tathra Water Supply	Constructing ..	" .....	...	.....	.....	39 3 7
Warren Weir .....	" .....	" .....	...	.....	.....	1,615 3 11
Wentworth Irrigation Works .....	" .....	" .....	...	.....	.....	1,714 19 1
Wyalong Water Supply .....	" .....	" .....	...	.....	.....	42 18 3
Willandra Weir, Raising Crest .....	" .....	" .....	...	.....	.....	358 4 11
Yanko Creek	Survey .....	" .....	...	.....	.....	0 12 6
Services for other Departments .....	.....	" .....	...	.....	.....	117 6 5
Total						£ 32,647 9 3

SUMMARY OF EXPENDITURE.

	£	s.	d.
Loans	32,518	2	10
Revenue	12	0	0
Services for other Departments	117	6	5
	£32,647	9	3

Government Architect.

(XII.)

Report of the Government Architect.

Department of Public Works, Government Architect's Branch,

Sydney, 17 November, 1897.

I HAVE the honor to present the following report on the work carried out in this branch during the twelve months ending 30th June, 1897.

The sum voted on Revenue for expenditure in connection with repairing, furnishing, and improving existing buildings, and fulfilling the many services rendered by this Branch amounted to £64,780.	£	s.	d.
The expenditure for the same period, including liabilities brought forward from the previous year, amounted to	60,249	2	10
And expenditure, the means for which were provided for by other departments, amounted to	23,720	3	10
The expenditure from the Loan Account upon sites, new buildings, and additions to existing buildings amounted to	166,183	0	0
Making a total expenditure for the year of	£250,152	6	8

The unexpended balance at the end of the financial year on Loan Account, granted under the several Acts, is estimated amounted to about £400,000.

The expenditure already mentioned has been incurred in connection with 583 buildings, of which the following list comprises the most important completed within the year:—

	£	s.	d.
Chancery Square Court—Additions	1,671	15	5
Custom-house—Additions	2,209	18	10
Darlinghurst Police Station—Erection	1,119	0	8
Museum—New roof	1,277	6	10
Supreme Court—Additions	13,244	19	2
Callan Park Hospital for Insane—Attendants' Quarters	3,225	1	3
Five Dock Post Office—Erection... ..	1,009	14	2
Parramatta Court-house—Erection	13,985	9	5
Parramatta Post Office—Additions	1,179	10	0
Rydalmere Hospital for Insane—Additions	7,480	9	9
Surry Hills Lock-up—Erection	3,045	17	1
Broken Hill Police Barracks—Erection... ..	2,704	0	0
Dubbo Lands Office—Erection	3,573	12	11
Forbes Police Barracks—Erection	1,549	8	0
Glen Innes Post Office—Erection	2,661	9	6
Greta Court-house—Erection	1,221	14	3
Hay Lands Office—Erection	2,859	11	3
Junee Police Station—Erection	1,521	2	5
Katoomba Court-house—Erection	2,350	10	3
East Maitland Lands Office—Erection	4,750	18	10
West Maitland Court-house—Erection	12,157	12	2
Mudgee Gaol—Additions... ..	1,174	2	6
Murrumburrah Police Buildings—Additions	1,003	1	0
Maclean Lock-up—Erection	1,666	11	0
Mount Victoria Post Office—Erection	1,603	18	5
Minmi Post Office—Erection	1,086	18	7
Newcastle Hospital for Insane—Additions	2,069	0	0
Nowra Court-house—Erection	3,792	19	4
Milton Court-house—Erection	1,324	10	1
Parkes Court-house—Additions	2,127	0	2
Rylstone Lock-up—Erection	1,473	13	0
Singleton Lock-up Gaol—Erection	1,262	18	10
Sofala Lock-up—Erection	1,198	15	3
Tumut Lock-up—Erection	1,516	15	0
Walgett Public Buildings—Improvements	2,563	5	6

The Chancery Square additions consist of additional offices to meet the increasing legal business there conducted. As the whole of the Chancery Square building is of an obsolete character, and should sooner or later be demolished to form a portion of the site of the new Law Courts, the expenditure upon the additions has been confined to the barest necessities, and the buildings must be considered as of a temporary character only.

The addition to the Custom House was necessitated by the adoption of land and income taxes as a new source of revenue, this Department requiring the accommodation for a very considerable new staff of officers.

The Museum roof—that is, the portion over the central building—owing to the ravages of white ants, which found their way from the streets up through the interstices of the stone wall to the roof and rendered it unsafe, has been entirely reconstructed, mostly in iron with copper covering, while every effort has been made to eradicate this expensive and dangerous pest.

The expenditure at the Supreme Court has provided two additional fully equipped court-rooms, fitted in the most modern style with all the accommodation necessary for the proper discharge of the duties of the higher Courts of justice. They are lighted from the top and ventilated by mechanical means, and present

present a handsome and substantial appearance. The accommodation for the public, as distinct from that of the legal profession, is purposely limited to seating for about fifty persons in each court. Attached is a range of chambers and offices in which His Honor the Chief Justice and the Judges of the Supreme Court and their Associates are accommodated, in lieu of the old and inconvenient rooms which for many years did duty for the same purpose.

The expenditure at Callan Park Hospital for the Insane covers new buildings erected to accommodate the increased staff of attendants.

The Court-house at Parramatta is one of the most important works carried out during the year. Its erection had long been delayed owing to a variety of reasons, one of which was the difficulty in determining as to its site. This, however, being got over, the new buildings have been erected in brick with stone dressings, with an elaborate and handsome stone portico. The court-house proper contains full accommodation for all the legal business likely to be transacted at Parramatta, and extensive ranges of police buildings are attached in the rear. These comprise general lock-up, Inspector and Sergeant's quarters, barracks for constables, and a range of stabling for mounted troopers; the whole forming, probably, the most complete establishment of the kind in the Colony. The design, both externally and internally, is based on less stereotyped lines than is usually the case, and may be considered successful.

An almost similar expense has been incurred in the erection of a Court-house and extensive police establishment at West Maitland, and in this case also the building was delayed until the site was finally settled upon. It is roomy and convenient, carefully designed, and has an imposing clock tower at the corner of the two public streets against which it stands. The lock-up and police buildings are very complete in all respects; stabling has yet to be provided.

The Post Office at Parramatta has been considerably improved, much needed accommodation being provided for the public, and better quarters for the Postmaster.

The expenditure at Rydalmere covers the erection of an extensive hospital, partly by the conversion of existing buildings, but principally by the erection of new ones. The buildings have been designed with all modern appliances in order to provide for the efficient working of this large establishment.

The new buildings erected for the Police Department are mainly represented by the following:—Surry Hills, Broken Hill, Fernmount, Forbes, Junee, Murrumburrah, Maclean, Rylstone, Singleton, Sofala, and Tumut; those for the Postal Department, by Five Dock, Summer Hill, Mount Victoria, Minmi, and Robertson Post Offices.

New offices have been erected for the Lands Department at Dubbo, Hay, and East Maitland.

The works carried out for the Justice Department are mainly represented by the erection of the New Court Houses at Greta, Katoomba, and Nowra, and the additions to the existing buildings at Parkes and Milton.

A considerable expenditure has been incurred on buildings in progress but not completed during the year. Prominent amongst these is the Kenmore Hospital for the Insane, on which no less than £47,103 have been expended during the year, in accordance with the general scheme adopted in the first instance, and for which an annual vote is taken until such time as the accommodation meets the requirements of the Inspector-General of Insane.

Amongst other buildings of an important character in course of erection during the year were the following:—

	Year's Expenditure.
	£
Redfern Court House	7,299
Health Board Offices	4,684
Art Gallery (additions to)	8,213
Government Printing Office (additions and alterations)	8,258
Royal Mint (additions to)	3,563
The Treasury (additions to)	2,489

It is again my urgent duty to draw attention to the state of dilapidation into which a large number of country buildings have necessarily fallen, owing to the want of periodical attention. Since 1893 the Vote for repairs has been very seriously diminished, so much so as to be below the degree of efficiency. The Votes are not only lower in amount, but have been, to a considerable extent, owing to the annual increase in the business carried on in the several buildings, and to the latter becoming in many instances somewhat obsolete, absorbed in expenditure undertaken for improvements and additions, as distinct from repairs, making the Vote itself still more inadequate. The average annual sum available since 1893 for this purpose has been about £30,000, whereas it should be at least £50,000. If the latter sum were granted for four succeeding years, I believe it would be possible to place every building in a fair state of repair, and to arrange future periodical works according to a table, giving attention by rotation to all the buildings.

I am aware that the Branch has been undeservedly criticised by other Departments for the delay in fulfilling requisitions for repairs and improvements, but when it is pointed out that no sooner is a year's Vote available, than nearly the whole of it is at once appropriated for requisitions brought on from previous years, the reason of the delay as regards newer requisitions will be at once apparent.

During the year I was instructed to prepare preliminary sketches for an Exhibition proposed to be held in 1899, and I accordingly prepared some for submission, applicable to the outer Domain as a site and at an estimated cost of about £183,000. The matter was brought under consideration, but for various important reasons it has been indefinitely postponed.

I was further instructed to prepare designs for a new House of Parliament at an estimated cost of £500,000, and to provide accommodation that would be suitable and ample for all future eventualities. I accordingly organised a staff of able assistants, and, with close personal attention, prepared plans and designs, including a plaster model of the design. These were subsequently brought before the Parliamentary Standing Committee on Public Works for investigation, but the labours of the Committee in this matter were not completed by the end of the current year.

A considerable part was taken by this Branch in the decoration and illumination of the Public buildings of Sydney, commemorative of the Jubilee of Her Majesty.

A Schedule of the expenditure on the various buildings and services is hereto attached.

W. L. VERNON,
Government Architect.

(XIII.)

RETURN of Expenditure on Public Works carried on by Government Architect from 1st July, 1896, to 30th June, 1897.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Commenced.	If Finished, actual amount of Expenditure.	If Unfinished, amount of Expenditure to 30th June, 1897.	Amount expended from 1st July, 1896, to 30th June, 1897.	Furniture.
SYDNEY.							
Audit Office	Repairs, &c.	Con. Rev.	1896	£ s. d. 71 17 6	£ s. d. 66 6 7	£ s. d. 5 10 11	£ s. d. 19 18 10
Attorney-General's Office	"		"	50 5 9	30 6 11		
Agriculture, Department of	"		"	1 17 10	1 17 10		
Admiral's Residence	"		"	132 18 0	114 12 4	18 5 8	
Art Gallery	"	Loans	1895	0 19 4	0 19 4		
"	Additions		"		9,579 3 7	8,213 2 2	
Argyle-street Police Station	Repairs, &c.	Con. Rev. & Loans.	1896	2 0 0		2 0 0	
Botanic Gardens—Director's Residence	Additions, &c.	Con. Rev.	"	444 5 7		444 5 7	
" Refreshment Room, &c.	Repairs, &c.	"	"	124 3 4	86 2 7	38 0 9	
Belmore Police Barracks	"	Con. Rev. & Loans.	"		128 4 8	128 4 8	
"	Furniture	Con. Rev.	"	98 16 10			98 16 10
Chancery Square Courts	Repairs		"	111 18 6		108 1 0	3 17 6
"	Furniture		1895	1 11 2			
"	Additions		"	1,671 15 5		1,544 12 11	1 11 2
Custom House	Repairs	Con. Rev.	1896	42 15 1	42 9 7	0 5 6	
"	Additions	Con. Rev. & Loans.	1895	2,209 18 10		1,461 2 10	
Coroner's Office	Repairs, &c.	Con. Rev.	1896	27 3 7		27 3 7	
Clerk of the Peace Office	"		"	9 2 9		9 2 9	
Crown Law Office	"		"	100 9 3		0 18 7	99 10 8
Central Police Court	"		"	105 7 10		93 12 7	11 15 3
Centennial Park—Cycle Pavilion	Erection	Con. Rev.	1895	566 15 3		482 15 3	
" Fountains	Additions		"	177 6 9			
" Cottage, Latrines, &c.	Repairs, &c.		1896	39 2 8		39 2 8	
" Roadway	Construction		"	173 14 6		173 14 6	
" Gate and Piers	Erection	Con. Rev.	"	121 1 8		121 1 8	
" Furniture	"		"	33 5 11			33 5 11
Colonial Secretary's Office	Repairs, &c.		"	104 7 9		38 3 6	66 4 3
" Lifts	"		"	13 2 6		13 2 6	
Darlinghurst Gaol	"	Con. Rev. & Loans.	"	695 8 2		680 9 1	14 19 1
" Multitubular Boiler	Erection, &c.	Loans	"		215 0 0	215 0 0	
" Police Station	Erection		1895	1,119 0 8		53 0 8	
" Furniture	"		1893	5 15 4			5 15 4
" Court-house, Repairs, Alteration Electric Light, &c.	Repairs, &c.		"	690 3 9		690 3 9	
" Receiving-house	"	Loans	"	0 5 10		0 5 10	
District Court	"	Con. Rev.	"	2 8 3		1 13 6	0 14 9
Domain—Cottage, &c.	"		"	48 18 9		30 3 9	18 15 0
Exhibition Building (new)	Incidental		"	4 5 10		4 5 10	
Electoral Office	Repairs, &c.		"	12 14 7		8 12 7	4 2 0
Free Public Library	"	Con. Rev.	"	109 19 5		102 7 5	7 12 0
" Lending Branch	"		"	5 10 0		5 0 0	0 10 0
Fisheries, Department of	"		"	0 12 7		0 8 7	0 4 0
Governor Duff's Memorial—Kerbing, &c.	Erection		"	221 10 9		221 10 9	
Government House	Repairs, &c.	Con. Rev.	"	658 9 8		324 8 5	334 1 3
" Stonework	"		"		1,316 0 0	1,316 0 0	
" Heating apparatus hot-houses	Erection		"	113 17 3		113 17 3	
" Saltwater Baths	Repairs, &c.		"	247 1 6		247 1 6	
" Stables	"	Loans	"	204 14 5		183 14 1	21 0 4
Government Printing Office	"		"	97 12 4		86 6 4	11 6 0
" Lifts	"		"	6 3 9		6 3 9	
" Additions, &c.	"		"		18,773 17 9	8,258 18 7	
General Post Office	Repairs, &c.	Con. Rev. and Loans	1895	867 19 7		712 18 8	65 0 11
Government Statists Office	"	Con. Rev.	1896	29 1 3		3 3 10	25 17 5
Governor Phillip's Statue—Foundations, &c.	Construction, &c.	Con. Rev. and Loans	1893		6,455 13 5	473 12 2	
George-street North Police Station	Repairs, &c.	Con. Rev.	1896	2 19 2		2 19 2	
Garden Palace Grounds Shelter Pavilion	Erection	Rev.	"		265 0 0	265 0 0	
Health Board Office (Old)	Repairs, &c.	Con. Rev. and Loans	"	57 11 2		0 13 2	56 18 0
" (New)	Erection	Loans	1895		4,809 19 4	4,684 19 6	
Inspector-General of Police Office	Repairs, &c.	Con. Rev.	1896	1 13 5		1 13 5	
Insolvency Court	"	Con. Rev. and Loans	"	38 19 9		32 19 9	6 0 0
" Strong Room	Erection	Loans	"	330 0 9		330 0 9	
Justice Department	Repairs, &c.	Con. Rev.	"	281 0 9		69 9 8	211 11 1
Lands Office	"	Rev.	"	250 9 2		220 12 0	29 17 2
" Lifts	"	Loan	"	382 10 3		382 10 3	
" Additions	Additions		"	116 15 10		116 15 10	
Land Valuation Office	Furniture		"	3 8 3			3 8 3
Lunacy Department	Repairs, &c.		"	5 12 2		0 11 4	5 0 10
Labour Bureau	Furniture	Con. Rev.	"	3 3 0			3 3 0
Land Tax Office	Repairs, &c.	Con. Rev.	"	78 8 3		6 4 9	72 3 6
Mines Department	"		"	210 2 1		73 19 9	136 2 4
"	Additions		"	46 10 0		46 10 0	
Museum	Repairs, &c.		"	362 10 6		362 10 6	
" New Roof	Erection	Loans	1895	1,277 6 10		642 6 10	
" Workshops	"	Con. Rev.	1896		3,048 11 7	3,048 11 7	
Mint, Royal—Additions and Repairs	Additions, &c.	Con. Rev. and Loans	"		3,563 10 5	3,563 10 5	
" Machinery	Erection, &c.	Loan	"		200 0 0	200 0 0	
Marine Board Office	Furniture	Con. Rev.	"	1 15 0			1 15 0
Master-in-Equity's Office	"		"	1 12 4			1 12 4
Military Offices	Repairs, &c.		"	1 4 0		1 4 0	
Morgue, Circular Quay	"		"	10 16 7		10 16 7	
" South Sydney	"	Con. Rev.	"	12 16 8		10 11 8	2 5 0
Martin Place Fencing	Erection		"	90 10 0		90 10 0	
Naval Depot	Repairs, &c.		"	10 14 10		10 14 10	
Ormonde House	"		"	96 9 0		96 9 0	
Observatory	"	Con. Rev.	"	37 0 4		37 0 4	
Ordinance Department	Furniture		"	5 2 0			5 2 0
Public Works Department	Repairs, &c.		"	992 13 1		696 10 0	296 3 1
" Lifts	Additions, &c.	Loan	"	5 11 3		5 11 3	
Public Instruction Department	Repairs, &c.	Con. Rev.	"	649 17 1		649 17 1	
Parliamentary Buildings	"	Rev.	"	45 1 6		45 1 6	
"	Attending to gas, &c.	Loan	"	524 10 5		391 6 6	133 3 11
Parliament, New Houses of	Erection		"	108 15 5		108 15 5	
Parliamentary Draftsman's Office	Repairs, &c.		"		297 12 3	297 12 3	
Public Works Committee Office	"		"	7 2 3		7 2 3	
Pharmacy Board Office	"	Con. Rev.	"	69 11 4		69 1 4	0 10 0
"	"	Rev.	"	0 14 3		0 14 3	

RETURN OF EXPENDITURE ON PUBLIC WORKS, &c.—continued.

Work, and where situated.	Whether Con- structing or under Repair.	Fund from which the Expense is defrayed.	When Commenced.	If Finished, actual amount of Expendi- ture.	If Unfinished, amount of Expenditure to 30th June, 1897.	Amount expended from 1st July, 1895, to 30th June, 1897.	Furniture.
SYDNEY—continued.							
Public Service Board Office	Repairs, &c.		1896	£ s. d. 157 3 2	£ s. d. 59 10 5	£ s. d. 59 10 5	£ s. d. 97 12 9
Prisons Department				0 15 0	0 5 0	0 5 0	0 10 0
Patents Office	Furniture			28 17 9			28 17 9
Registrar of Friendly Societies				1 10 0			1 10 0
Registrar-General's Department	Repairs, &c.	Con.		76 3 6	75 13 6	75 13 6	0 10 0
Railway Department		Rev.		1 11 8	1 11 8	1 11 8	
Richmond Terrace				39 6 6	22 19 0	22 19 0	16 7 6
Supreme Court		Loan & Con. Rev.		603 14 6		193 0 5	470 14 1
Stamp Office	Additions, &c.	Loan	1894	13,244 19 2		1,948 19 9	
Sheriffs Office	Repairs, &c.		1896	2 0 9		2 0 9	
Stores Department	Furniture	Con.		10 0 4			10 0 4
"Sobraon," N.S. Ship	Repairs, &c.	Rev.		25 0 0	24 10 0	24 10 0	0 10 0
Sydney Hospital, South Wing, &c.				4 0 1	4 0 1	4 0 1	
" Pathological Department	Erection	Loan	1896	1,397 6 4	1,397 6 4	1,397 6 4	
Treasury					287 4 6	287 4 6	
	Repairs, &c.	Con.		106 10 11		57 5 10	49 5 1
		Rev.					
Tramway Construction Branch	Additions	Loan	1895		2,642 5 3	2,489 7 6	
University	Repairs, &c.		1896	28 4 0		28 4 0	
		Con.		16 15 6		15 17 6	0 18 0
		Rev.		135 15 0		135 15 0	
Water Police Court	Lighting lamps, &c.						
	Repairs, &c.	Con.		11 3 11		11 3 11	
		Rev.					
	Additions	& Loan					
		Loan		91 12 0		91 12 0	
SUBURBS.							
ANNANDALE.							
Post and Telegraph Office	Repairs, &c.			9 12 6		9 12 6	
ARNSCLIFFE.							
Post and Telegraph Office	Purchase of land	Loan		352 8 0		352 8 0	
BILLOELA.							
Gaol	Repairs & additions	Con. Rev.		855 9 4		851 4 9	4 4 7
BURWOOD.		and Loan.					
Post and Telegraph Office	Repairs, &c.	Con. Rev.		17 9 0		17 9 0	
BALMAIN.							
Post and Telegraph Office		Con. Rev.		76 11 4		76 11 4	
		and Loan.					
Court-house		Con.		21 11 10		1 15 3	19 16 7
Town Hall		Rev.		0 7 0		0 7 0	
BOTANY.							
Lock-up	Alterations	Loan			27 14 0	27 14 0	
BRUSH FARM REFORMATORY.							
Tanks	Erection, &c.			125 3 0		125 3 0	
BRUSH FARM REFORMATORY	Repairs, &c.			11 10 0		11 10 0	
COCKATOO ISLAND.							
Wall, "Sobraon" Recreation Ground	Repairs	Con.		22 9 0		22 9 0	
COAST HOSPITAL.	Repairs, &c.	Rev.		263 2 5		241 7 5	21 15 0
Leper Lazaret				162 18 8		146 18 8	16 0 0
CALLAN PARK.							
Hospital for Insane				82 6 1		82 6 1	
	Additions, &c.	Con. Rev.	1895	3,225 1 3		1,609 8 3	
		and Loan.					
	Furniture	Con.	1896	80 14 3			80 14 3
CAMPELDOWN.							
Post and Telegraph Office	Alterations	Rev.		5 10 0		5 10 0	
DRUMMOYNE.							
Post and Telegraph Office	Cost of land			500 0 0		500 0 0	
ENMORE.							
Post and Telegraph Office	Repairs, &c.			3 0 0		3 0 0	
EDGECLIFFE (WOOLLAHRA).							
Post and Telegraph Office		Loan		151 19 8		151 19 8	
FIVEDOCK.							
Post and Telegraph Office	Erection		1895	1,069 14 2		429 14 2	
	Furniture		1896	23 12 3			23 12 3
GLADESVILLE.							
Hospital for Insane	Additions	Con.	1895	238 7 10		23 7 10	
	Repairs, &c.	Rev.	1896	584 7 11		584 7 11	
GLERE POINT.							
Post and Telegraph Office	Cost of land	Loan		8 11 6		8 11 6	
				41 0 0		41 0 0	
Court-house	Repairs, &c.	Con.		7 10 0		7 10 0	
GOAT ISLAND BUILDINGS	Additions	Rev.		384 6 4		384 6 4	
KOGARAU.							
Post and Telegraph Office		Loan		41 19 6		41 19 6	
LEICHHARDT.							
Post and Telegraph Office	Repairs			72 10 0		72 10 0	
MARRICKVILLE.							
Post and Telegraph Office	Repairs, &c.	Con.		116 1 6		116 1 6	
		Rev.					
Lock-up		Con. Rev.		22 1 3		11 12 9	10 8 6
NEWINGTON.		and Loans					
Asylum	Repairs	Con. Rev.		81 14 10		81 14 10	
" (new Ward)	Additions	Loan			1,041 7 9	1,041 7 9	
NORTH SYDNEY.							
Post and Telegraph Office	Repairs, &c.	Loan and Con. Rev.			55 9 0	55 9 0	
Court-house				30 17 6		39 17 6	
NEWTOWN.							
Court-house	Repairs	Con.		5 10 2		4 6 4	1 3 10
Police Station		Rev.		0 7 7		0 7 7	
PETERSHAM.							
Post and Telegraph Office	Erection	Loan			1,900 0 0	1,900 0 0	
PARRAMATTA.							
Gaol	Repairs, &c.	Loan and Con. Rev.		789 2 11		778 5 5	10 17 6
Court-house	Erection and land	Loan	1895	13,985 9 5		4,887 16 3	
	Repairs	Con. Rev.	1896	7 4 1		7 4 1	
	Furniture	Loan and Con. Rev.		101 6 7			101 6 7
Post and Telegraph Office	Additions	Loan	1895	1,179 10 0		569 10 0	
Hospital for Insane	Repairs	Con. Rev.	1896	260 10 2		260 10 2	
	Additions	Loan			602 6 2	602 6 2	
Benevolent Asylum (George-street)	Repairs, &c.	Con.		57 15 10		50 5 10	7 10 0
" (Macquarie-street)		Rev.		3 12 2		3 12 2	
North Post and Telegraph Office				17 16 10		9 18 6	7 18 4
Old Court-house	Land	Loan		203 16 10		45 1 7	
ROOKWOOD.	Repairs	Con.		125 0 0		125 0 0	
		Rev.					
Benevolent Asylum	Repairs, &c.			176 3 11		168 2 11	8 1 0
	Additions	Loan		50 0 0		50 0 0	
	Irrigation	Con. Rev.			418 9 1	418 9 1	
RANDWICK.							
Post and Telegraph Office	Erection	Loan			175 0 0	175 0 0	

RETURN OF EXPENDITURE ON PUBLIC WORKS, &c.—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Commenced.	If Finished, actual amount of Expenditure.	If Unfinished, amount of Expenditure to 30th June, 1897.	Amount expended from 1st July, 1896, to 30th June, 1897.	Furniture.
				£ s. d.	£ s. d.	£ s. d.	£ s. d.
SUBURBS—continued.							
RYDE.							
Court-house, &c.	Additions	Loan and Con. Rev.	1896	4 15 0	.....	4 15 0	.....
ROCKDALE.							
Post and Telegraph Office	"	Con. Rev.	"	40 6 6	.....	40 6 6	.....
ROZELLE.							
Post and Telegraph Office	Fencing	Loan ..	"	14 10 0	.....	14 10 0	.....
REDFERN.							
Court-house	Erection	Loan ..	1895	.....	7,305 15 6	7,209 9 6	.....
Post and Telegraph Office	Repairs	Con. Rev.	1896	10 0 0	.....	10 0 0	.....
RYDALMERE.							
Hospital for Insane	Erection and additions.	Loan and Con. Rev.	1895	7,480 9 9	.....	3,446 0 0	.....
"	Repairs	Con. Rev.	1896	.....	43 5 0	43 5 0	.....
"	Furniture	Con. Rev.	"	135 19 8	.....	.....	135 19 8
SOUTH HEAD (SYDNEY).							
Shaftebury Reformatory	Repairs	Con. Rev.	"	19 0 0	.....	19 0 0	.....
Macquarie Lighthouse	Furniture	Con. Rev.	"	2 14 2	.....	.....	2 14 2
SURRY HILLS.							
Lock-up	Erection	Loan	1895	3,045 17 1	.....	47 3 2	.....
"	Repairs, &c.	Con. Rev. and Loan.	1896	15 13 9	.....	4 18 9	10 15 0
SUMMER HILL.							
Post and Telegraph Office	Land	Loan ..	"	720 0 0	.....	720 0 0	.....
STANMORE.							
Police Station	Drainage	Loan ..	"	37 19 1	.....	37 19 1	.....
ST. PETERS.							
Post and Telegraph Office	Addition	Con. Rev.	"	2 6 0	.....	2 6 0	.....
WAVERLEY.							
Post and Telegraph Office	Stove	Con. Rev.	"	8 10 0	.....	8 10 0	.....
Police Station	Repairs	Loan and Con. Rev.	"	2 8 3	.....	2 8 3	.....
WOOLLOOMOOLOO.							
Police Station	"	Con. Rev.	"	0 10 9	.....	0 10 9	.....
COUNTRY.							
ALBURY.							
Post and Telegraph Office	"	Con. Rev.	"	3 15 0	.....	3 15 0	.....
Gaol	"	Con. Rev.	"	109 5 5	.....	104 8 5	4 17 0
Police Station	"	Con. Rev.	"	32 10 3	.....	32 10 3	.....
Clerk of Works Office	Incidental	Con. Rev.	"	2 18 5	.....	2 18 5	.....
ARMIDALE.							
Post and Telegraph Office	Repairs	Loan and Con. Rev.	"	1 0 0	.....	1 0 0	.....
Gaol	"	Con. Rev.	"	21 6 9	.....	19 11 0	1 15 9
Court-house	Repairs and alterations.	Loan and Con. Rev.	"	40 11 6	.....	40 11 6	.....
Lock-up	Repairs, &c.	Con. Rev.	"	10 0 0	.....	10 0 0	.....
Police Station and Quarters	Repairs and additions.	Loan and Con. Rev.	"	.....	128 15 4	128 15 4	.....
"	Furniture	Con. Rev.	"	9 3 4	.....	.....	9 3 4
Clerk of Works Office	Incidental	Con. Rev.	"	16 2 7	.....	16 2 7	.....
ADELONG.							
Post and Telegraph Office	Repairs	Con. Rev.	"	10 0 0	.....	10 0 0	.....
ARALUEN.							
Post and Telegraph Office	Additions	Con. Rev.	"	.....	57 2 6	57 2 6	.....
ANGLEDPOOL, NEW.							
Post and Telegraph Office	Land	Loan ..	"	45 0 0	.....	45 0 0	.....
ADAMSTOWN.							
Post and Telegraph Office	Additions	Con. Rev.	"	69 10 0	.....	69 10 0	.....
"	Furniture	Con. Rev.	"	1 15 0	.....	.....	1 15 0
ALECTOWN.							
Police Station	Stove	Con. Rev.	"	6 0 11	.....	6 0 11	.....
ABERDEEN.							
Police Buildings	Repairs, &c.	Loan and Con. Rev.	"	12 15 0	.....	12 15 0	.....
"	Furniture	Con. Rev.	"	26 3 9	.....	.....	26 3 9
BATHURST.							
Gaol	Repairs, &c.	Loan and Con. Rev.	"	976 2 0	.....	976 2 0	.....
"	Furniture	Con. Rev.	"	10 12 4	.....	.....	10 12 4
Post and Telegraph Office	Repairs	Loan ..	"	.....	69 16 6	69 16 6	.....
Court-house	"	Loan and Con. Rev.	"	74 2 6	.....	74 2 6	.....
"	Incidental	Con. Rev.	"	2 3 6	.....	2 3 6	.....
Clerk of Works Office	Repairs	Loan ..	"	36 11 0	.....	36 11 0	.....
Lock-up	"	Loan and Con. Rev.	"	11 14 10	.....	2 19 9	8 15 1
BOURKE.							
Gaol	"	Con. Rev.	"	14 1 11	.....	14 1 11	.....
Court-house	Furniture	Con. Rev.	"	2 12 11	.....	.....	2 12 11
BROKEN HILL.							
Gaol	Additions	Con. Rev.	1895	943 17 8	.....	547 19 1	.....
"	Repairs, &c.	Con. Rev.	1896	35 8 9	.....	28 15 0	6 13 9
Post and Telegraph Office	Additions	Loan and Con. Rev.	"	69 7 6	.....	69 7 6	.....
"	Repairs, &c.	Con. Rev.	"	10 6 9	.....	8 14 11	1 11 10
Court-house	Erection	Loans ..	1895	2,704 0 0	.....	1,899 0 0	.....
Police Barracks	Incidental	Con. Rev.	1896	1 2 10	.....	0 14 1	0 8 9
Clerk of Works Office	"	Con. Rev.	"	.....	.....	.....	.....
BOMBALA.							
Court-house	Repairs, &c.	Loan ..	"	3 6 3	.....	3 6 3	.....
Post and Telegraph Office	Additions	Con. Rev.	"	171 19 2	.....	171 19 2	.....
Gaol	Furniture	Con. Rev.	"	1 10 1	.....	.....	1 10 1
BRAIDWOOD.							
Court-house	"	Con. Rev.	"	1 6 6	.....	.....	1 6 6
Police Station	Additions	Loan and Con. Rev.	"	44 5 0	.....	44 5 0	.....
Lock-up Gaol	Repairs, &c.	Con. Rev.	"	20 10 6	.....	15 14 3	4 16 3
BOGGABRI.							
Court-house	"	Loan and Con. Rev.	1895	105 8 4	.....	52 10 0	.....
"	Furniture	Con. Rev.	1896	7 9 7	.....	.....	7 9 7
BERRIMA.							
Gaol	Repairs	Con. Rev.	"	102 16 1	.....	102 16 1	.....
BALRANALD.							
Court-house	"	Loan ..	"	1 0 0	.....	1 0 0	.....
BINGARA.							
Post and Telegraph Office	Additions	Con. Rev. and Loan.	1895	382 19 0	.....	5 0 0	.....
"	Furniture	Con. Rev.	1896	0 19 6	.....	.....	0 19 6
Court-house	Repairs, &c.	Con. Rev.	"	15 2 9	.....	0 10 0	14 12 9
BREWARRINA.							
Post and Telegraph Office	Additions, &c.	Loan and Con. Rev.	"	179 0 0	.....	179 0 0	.....
BEGA.							
Lock-up Gaol	Repairs, &c.	Con. Rev.	"	4 0 8	.....	2 2 4	1 18 4

RETURN OF EXPENDITURE ON PUBLIC WORKS, &c.—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Commenced.	If Finished, actual amount of Expenditure.	If Unfinished, amount of Expenditure to 30th June, 1897.	Amount expended from 1st July, 1896, to 30th June, 1897.	Furniture.
COUNTRY—continued.				£ s. d.	£ s. d.	£ s. d.	£ s. d.
BALLINA.							
Court-house	Repairs, &c.	Con. Rev.	1896	11 7 6		11 7 6	
Police Station	Stove	Loan		4 17 6		4 17 6	
BOWRAL.							
Court-house	Additions, &c.	Loan and Con. Rev.		79 15 3		64 10 0	15 5 3
BARRARA.							
Police Station	Furniture, &c.	Con. Rev.		5 15 6		0 15 0	5 0 6
"	Fencing	Loan		57 5 0		57 5 0	
Court-house	Repairs, &c.	Con. Rev.		10 4 7		2 5 0	7 19 7
BURROWA.							
Police Station	"	Loan		3 10 0		3 10 0	
BULLI.							
Post and Telegraph Office	Legal charges	Con. Rev.		1 6 3		1 6 3	
BYRON BAY.							
Post and Telegraph Office	Erection	Loan			125 12 7	125 12 7	
BERRY.							
Court-house	Fencing	Con. Rev.		51 9 9		51 9 9	
Post and Telegraph Office	Repairs	"			13 12 6	13 12 6	
BATEMAN'S BAY.							
Post and Telegraph Office	Additions	"		109 14 0		109 14 0	
BUNGENDORE.							
Post and Telegraph Office	Erection	Loan	1895	562 18 0		262 18 0	
BUCKLEY'S CROSSING.							
Court and Watch-house	Additions	Loan	1896		516 17 6	516 17 6	
BURRAGA.							
Police Station	Repairs	"		43 0 0		43 0 0	
BOGABILLA.							
Court and Watch-house	Erection	"	1895	545 15 8		230 5 8	
"	Repairs	"	1896	4 10 0		4 10 0	
BOWNA.							
Police Station	"	Con. Rev.	"	6 2 0		6 2 0	
BENDEMEER.							
Court-house	"	"	"	0 16 1		0 16 1	
BOOLIGAL.							
Police Station	Addition	Loan	"	8 5 0		8 5 0	
Post and Telegraph Office	"	"	"	305 18 1		303 9 9	2 8 4
BERRIDALE.							
Police Station	"	Con. Rev.	"	33 0 0		33 0 0	
BLACKVILLE.							
Police Station	Stove	Loan	"	5 15 2		5 15 2	
BELLINGEN.							
Court-house	Additions	Loan and Con. Rev.	1895	518 8 0		93 8 0	
"	"	Loan	1896	7 0 0		7 0 0	
BARNEDMAN.							
Court-house	Erection	Con. Rev.	1895	487 8 6		291 8 6	
Police Buildings	Fencing and gate	Loan	1896	27 0 6		27 0 6	
BYEROCK.							
Post and Telegraph Office	Repairs	Con. Rev.	"	11 10 0		11 10 0	
BARRINGUN.							
Post and Telegraph Office	Land	Loan and Con. Rev.	"	50 2 3		50 2 3	
BUNDARRA.							
Court-house	Repairs	Con. Rev.	"	8 10 0		8 10 0	
Post and Telegraph Office	"	Loan	"		38 0 0	38 0 0	
BROKEN BAY.							
Custom-house	Fencing	Con. Rev.	"	83 1 6		83 1 6	
BRANXTON.							
Police Station	Repairs	Loan	"	99 0 0		99 0 0	
Court-house	"	"	"	59 0 0		59 0 0	
CAMPBELLTOWN.							
Court-house	Furniture	Con. Rev.	"	1 18 1		100 0 0	1 18 1
State Nursery	Additions	"	"		100 0 0	100 0 0	
COONAMBLE.							
Lock-up Gaol	Repairs	Loan	"	2 0 0		2 0 0	
Police Station	Laying on water	"	"	10 1 8		10 1 8	
COROWA.							
Police quarters	Stove	Loan and Con. Rev.	"	8 8 4		8 8 4	
Custom House	Repairs, &c.	Con. Rev.	"	50 13 8		50 13 8	
COOMA.							
Court-house	"	Loan and Con. Rev.	"		0 15 2	0 5 0	0 10 2
Police Station	"	Loan	"		150 10 0	150 10 0	
Lands Office	"	Con. Rev.	"	2 0 0		2 0 0	
Post and Telegraph Office	"	Loan	"		366 0 0	366 0 0	
Gaol	"	"	"	0 12 2		0 12 2	
CLARENCE TOWN.							
Lock-up	"	Con. Rev.	"	4 18 6		4 18 6	
CAMDEX.							
Court-house	"	"	"	0 12 6			0 12
Police Station	Kerbing roadway	"	"	12 9 0		12 9 0	
COOTAMUNDRA.							
Post and Telegraph Office	Repairs	Loan	"		65 0 0	65 0 0	
Lock-up Gaol	Alterations, &c.	"	"		138 2 9	138 2 9	
COONABARABRAN.							
Court and Watch-house	Repairs, &c.	Con. Rev.	"	22 14 3		5 0 0	17 14 3
Post and Telegraph Office	"	"	"	52 14 4		52 14 4	
Lock-up Gaol	Additions	Con. Rev.	1895	239 0 0		217 0 0	
"	Furniture	"	1896	0 9 6			0 9 6
CASINO.							
Police Station	Tank	Loan	"	5 0 0		5 0 0	
Post and Telegraph Office	Repairs	"	"	21 9 6		21 9 6	
Lock-up Gaol	"	"	"		20 0 0	20 0 0	
COBAR.							
Court-house	"	Rev.	1895	75 0 0			
Police Station	"	Loan	"		63 12 6	63 12 6	
Lock-up Gaol	"	Con. Rev.	"	10 0 0		10 0 0	
Post and Telegraph Office	"	Rev.	"	60 0 0		60 0 0	
CARCOAR.							
Gaol	"	Loan	"		34 5 0	34 5 0	
Lands Office	"	Con. Rev.	"	4 13 0			4 13 0
CARRATHOOL.							
Post and Telegraph Office	Fencing	Loan	1896	8 0 0		8 0 0	
CONDOROLIN.							
Court-house	Repairs	"	"	42 0 0		42 0 0	
Post and Telegraph Office	"	"	"	2 0 0		2 0 0	
CARROLL.							
Police Station	"	Con. Rev.	"	1 7 9		1 7 9	
CAL-LAL.							
Police Station	Pump	"	"	7 10 0		7 10 0	
COPELAND.							
Court-house	Repairs	"	"	63 0 0		63 0 0	

RETURN OF EXPENDITURE ON PUBLIC WORKS, &c.—continued.

Work, and where situated.	Whether Con- structing or under Repair.	Fund from which the Expense is defrayed.	When Commenced.	If Finished, actual amount of Expendi- ture.	If Unfinished, amount of Expenditure to 30th June, 1897.	Amount expended from 1st July, 1896, to 30th June, 1897.	Furniture.
COUNTRY—continued.				£ s. d.	£ s. d.	£ s. d.	£ s. d.
CORAKI.							
Police Station	Tank	Loan	1896	8 15 0		8 15 0	
COPMANHURST.							
Police Station	Repairs, &c.	Con. Rev.	"	6 11 8		6 11 8	
CROOKWELL.							
Police Buildings	Furniture	Con. Rev.	"	2 16 11			2 16 11
Court-house	Repairs	Loan	"	2 15 0		2 15 0	
COOLOON (TWEED HEADS).							
Police Buildings	Erection	Loan	1895	767 16 6		221 10 0	
CANDELO.							
Post and Telegraph Office	Additions, &c.	Con. Rev.	1896	340 6 10		337 0 6	3 6 4
CARGO.							
Police Station	Stable	Con. Rev.	"	107 0 0		107 0 0	
CAMDEN HAYEN.							
Court-house	Furniture	Con. Rev.	"	6 4 5			6 4 5
COOLAMON.							
Post and Telegraph Office	Erection	Loan	"	502 0 0		502 0 0	
CESSNOCK.							
Court-house	Repairs	Con. Rev.	"	34 10 0		34 10 0	
COBARGO.							
Post and Telegraph Office	"	Con. Rev.	"	59 3 0		59 3 0	
CHATSWORTH ISLAND.							
Police Station	Addition	Loan	"	5 15 0		5 15 0	
Police Barracks	Land	Loan and Con. Rev.	"	352 10 0		352 10 0	
DENILQUIN.							
Police Station	Furniture	Con. Rev.	"	4 14 0			4 14 0
Gaol	Repairs	Con. Rev.	1895	135 16 6		52 9 7	
"	Additions	Loan	1896	259 19 0		259 19 0	
"	Furniture	Con. Rev.	"	1 7 1			1 7 1
Court-house	Repairs, &c.	Con. Rev.	"	16 7 4		5 0 0	11 7 4
"	Alterations, &c.	Loan	"	78 7 6		78 7 6	
DUBBO.							
Gaol	Repairs	Con. Rev.	"	30 5 10		30 5 10	
"	Cooking Plant	Con. Rev.	"	177 11 6		177 11 6	
"	Additions	Loan, & Con. Rev.	1895		1,008 11 6	200 0 0	
Court-house	Repairs	Con. Rev.	1896	3 13 0		3 13 0	
Police Station	Furniture	Con. Rev.	"	1 4 0			1 4 0
Lands Office	Erection	Con. Rev.	1895	3,573 12 11		192 10 10	
"	Furniture	Con. Rev.	1896	185 8 6			185 8 6
DUNGOO.							
Post and Telegraph Office	Repairs	Con. Rev.	"	5 0 0		5 0 0	
Court-house and Lock-up	Alterations	Con. Rev.	"	23 0 0		23 0 0	
DRAKE.							
Court-house and Lock-up	Erection	Loan, and Con. Rev.	1895	976 15 3		379 10 3	
DAYSDALE.							
Police Station	"	Loan	1896	889 9 7		889 9 7	
DAVIESVILLE.							
Police Buildings	"	Loan, and Con. Rev.	"	356 6 0		356 6 0	
EMMAVILLE.							
Court-house	Repairs	Loan, and Con. Rev.	"		55 14 0	55 14 0	
"							
Post and Telegraph Office	"	Con. Rev.	"	28 12 0		28 12 0	
Police Station	"	Con. Rev.	"	8 1 4		8 1 4	
EUSTON.							
Post and Telegraph Office	"	Loan	"	6 0 0		6 0 0	
EUGONIA.							
Police Buildings	Tank	Con. Rev.	"	5 5 0		5 5 0	
ENNGONIA.							
Post and Telegraph Office	Additions, &c.	Loan	"	29 7 1		23 0 0	6 7 1
EUGOWRA.							
Police Buildings	Repairs	Con. Rev.	"	1 13 9		1 13 9	
EUABALONG.							
Police Station	"	Con. Rev.	"	3 11 4		3 11 4	
FORBES.							
Court-house	Repairs, &c.	Con. Rev.	"	3 3 4		1 8 6	1 14 10
Police Station	Alterations	Con. Rev.	1895	142 9 6		142 9 6	
Post and Telegraph Office	Repairs, &c.	Con. Rev.	1896	494 7 6		344 7 6	
Gaol	"	Con. Rev.	"	13 3 1		13 0 7	0 2 6
"	Fencing	Loan & Con. Rev.	"		140 13 10	140 13 10	
"	Additions	Con. Rev.	"		61 5 0	61 5 0	
Survey Office	Furniture	Con. Rev.	"	0 11 2			0 11 2
Police Barracks	Erection	Loan	"	1,549 8 0		1,549 8 0	
FOSTER.							
Police Station	Repairs	Con. Rev.	"	87 10 0		87 10 0	
FERNMOUNT.							
Police Buildings	Erection	Loan	"	1,454 14 7		683 18 11	
GOSFORD.							
Court-house and Police Buildings	Repairs	Loan	"	48 1 0		48 1 0	
GOULBURN.							
Gaol	Repairs, &c.	Loan & Con. Rev.	"	333 14 3		333 14 3	
Court-house	"	Con. Rev.	"	4 19 6		4 19 6	
Post and Telegraph Office	"	Con. Rev.	"	1 1 0		0 13 6	0 7 6
Police Barracks	"	Loan	"	7 0 0		7 0 0	
Clerk of Works' Office	Incidental	Con. Rev.	"	2 6 6		2 6 6	
Land and Survey Office	Repairs, &c.	Con. Rev.	"		89 15 0	89 15 0	
"	Furniture	Con. Rev.	"	0 13 2			0 13 2
GRAFTON.							
Gaol	Repairs, &c.	Loan	"	9 13 2		9 13 2	
Post and Telegraph Office	"	Con. Rev.	"	80 8 6		80 8 6	
Police Barracks	"	Con. Rev.	"	10 12 5		10 12 5	
"	Pump	Loan	"	3 2 0		3 2 0	
"	Fencing	Loan	"	69 3 0		69 3 0	
Lock-up	Addition	Con. Rev.	"	6 4 6		6 4 6	
Lands Office, &c.	Alterations, &c.	Con. Rev.	"	89 1 9		76 15 4	12 6 5
Clerk of Works' Office	Incidental	Con. Rev.	"	5 0 11		5 0 11	
GUNDAGAL.							
Court-house	Repairs	Loan	1895	22 6 0		22 6 0	
Police Station, &c.	Addition	Loan	"	6 13 0		6 13 0	
GUNVEDAH.							
Post and Telegraph Office	Alterations	Loan & Con. Rev.	"	62 15 0		62 15 0	
Court-house	Repairs, &c.	Con. Rev.	"	62 18 6		62 18 6	
Lock-up Gaol	"	Con. Rev.	"	6 11 10		6 11 10	
GLEN INNES.							
Post and Telegraph Office	Erection	Loan	1895	2,661 9 6		1,292 15 3	
"	Furniture	Con. Rev.	1896	0 6 6			0 6 6
Lock-up and Police Station	Tanks	Loan	"	7 15 0		7 15 0	
Gaol	Addition	Con. Rev.	"	10 15 3		10 15 3	
GRENFELL.							
Court-house	Furniture	Con. Rev.	"	2 12 2			2 12 2
Lock-up	Pump	Loan	"	2 8 0		2 8 0	
Post and Telegraph Office	Addition	Con. Rev.	"	63 18 6		63 18 6	

RETURN OF EXPENDITURE ON PUBLIC WORKS, &c.—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Commenced.	If Finished, actual amount of Expenditure.	If Unfinished, amount of Expenditure to 30th June, 1897.	Amount expended from 1st July, 1896, to 30th June, 1897.	Furniture
COUNTRY—continued.				£ s. d.	£ s. d.	£ s. d.	£ s. d.
RETA.							
Court-house	Erection	Loan & Con. Rev.	1896	1,221 14 3		248 14 3	
"	Furniture	Con. Rev.	"	15 4 1			15 4 1
GUYRA.							
Police Station	Additions		"	101 15 0		101 15 0	
GRESFORD.							
Police Station	Repairs	Con. Rev.	"	3 0 0		3 0 0	
GUNDAROO.							
Police Station	"		"		58 11 0	58 11 0	
GLADSTONE.							
Court-house	"	Loan	"	8 10 0		8 10 0	
GLOUCESTER.							
Police Buildings and Lock-up	Erection	Loan and Con. Rev.	"	472 1 8		472 1 8	
GRONG GRONG.							
Police Station	Additions		"	23 8 0		23 8 0	
GONGOLOON.							
Police Station	Tank		"	11 10 0		11 10 0	
GILGUNNIA.							
Police Station	Furniture	Con. Rev.	"	39 15 1			39 15 1
HAY.							
Post and Telegraph Office	Repairs, &c.		"	10 0 6		10 0 6	
Court-house	Furniture		"	20 19 3			20 19 3
Police Barracks	Repairs		"	0 15 9		0 15 9	
Gaol	"		"	21 11 10		21 11 10	
Land and Survey Office	Erection	Loan	1895	2,859 11 3		1,368 17 0	
HAMILTON.							
Post and Telegraph Office	Repairs	Loan and Con. Rev.	1896	62 15 0		62 15 0	
HILL END.							
Post and Telegraph Office	"	Loan	"	190 16 0		190 16 0	
HILLSTON.							
Police Station	"	Loan and Con. Rev.	1895	339 3 0		51 3 0	
"							
Court-house	Furniture		1896	1 18 10			1 18 10
Gaol	Repairs, &c.	Con. Rev.	"	2 16 10		2 16 10	
HOWLONG.							
Court-house	Furniture		"	11 2 7			11 2 7
HARDEN.							
Police Station	Repairs	Loan	"		50 15 3	50 15 3	
HINTON.							
Police Buildings	"		"	51 0 0		51 0 0	
HILLAROVIE.							
Police Station and Quarters	"	Con. Rev.	"	5 7 10		5 7 10	
Court-house	"		"	4 0 0		4 0 0	
Post and Telegraph Office	"		"	9 14 8		9 14 8	
HUMULA.							
Police Station	Erection	Loan	"	329 18 10		329 18 10	
IVERELL.							
Post and Telegraph Office	Repairs	Con. Rev.	"		75 0 0	75 0 0	
Court-house	"		"	20 0 0		20 0 0	
Police Barracks	"		"	3 18 6		3 18 6	
IVANHOE.							
Post and Telegraph Office	Land		"	16 0 0		16 0 0	
JERILDERIE.							
Lock-up Gaol	Repairs	Loan & Con. Rev.	"	5 5 3		5 5 3	
Court-house	"		"	7 6 7		5 14 3	1 12 4
Police Station	Furniture	Con. Rev.	"	0 2 6			0 2 6
JUNEE.							
Court-house	Repairs		"	2 10 0		2 10 0	
Police Station	Erection	Loan	"	1,521 2 5		1,521 2 5	
JINDABYNE.							
Court-house	Furniture	Con. Rev.	"	2 19 10			2 19 10
JINDERRA.							
Police Buildings	Erection	Loan	1895	923 0 8		355 0 8	
JENOLAN CAVES.							
Accommodation House	"	Loan and Con. Rev.	1896		1,518 7 9	1,518 7 9	
KIAMA.							
Post and Telegraph	Furniture		"	2 8 0			2 8 0
KEMPSEY.							
Post and Telegraph Office	Repairs	Con. Rev.	"	0 5 0		0 5 0	
Police Station	Tank		"	2 19 6		2 19 6	
KEMPSEY, WEST.							
Lock-up	Stove	Loan and Con. Rev.	"	5 2 6		5 2 6	
"							
Court-house	Erection	Loan	"		1,255 9 8	1,255 9 8	
KATOOMBRA.							
Court-house	"	Loan & Con. Rev.	1895	2,350 10 3		130 19 5	
"	Repairs, &c.		1896	21 10 3		15 19 6	5 10 9
KENMORE.							
Hospital for Insane	Erection	Loan	1894		86,895 8 4	44,986 0 4	
"	Furniture		1895		2,045 2 8		2,045 2 8
"	"	Con. Rev.	1896	18 5 0			18 5 0
"	"		"	54 6 4			54 6 4
LIVERPOOL.							
Benevolent Asylum	Repairs, &c.	Con. Rev.	"	322 13 0		315 19 2	6 13 10
Post and Telegraph Office	"		"	148 12 8		148 12 8	
LISMORE.							
Court-house	Additions	Loan	"		152 0 0	152 0 0	
Police Station	Furniture	Con. Rev.	"	1 0 6			1 0 6
Police Buildings	Erection	Loan and Con. Rev.	"		2,040 18 0	2,040 18 0	
LAMITON.							
Police Barracks	Incidental	Con. Rev.	"	0 7 6		0 7 6	
Court and Watch House	Furniture		"	11 17 1			11 17 1
Post and Telegraph Office	Repairs		"	39 10 1		39 10 1	
Police Station	Fencing	Loan	"	29 0 0		29 0 0	
LAWRENCE.							
Post and Telegraph Office	Erection		1895	4 12 9		224 12 9	
LITHGOW.							
Post and Telegraph Office	Incidental		1896	1 0 0		1 0 0	
LORD HOWE ISLAND.							
Magistrate's Office	Repairs, &c.	Con. Rev.	"	52 2 7		3 7 3	48 15 4
LOCKVILLAR.							
Police Station	"		"	10 10 0		10 10 0	
MAITLAND.							
Gaol	Repairs, &c.		"	435 12 3		435 12 3	
"	Additions	Loan	1894		2,542 14 0	360 2 1	
Clerk of Works	Incidental	Con. Rev.	1896	0 1 6		0 1 6	

RETURN OF EXPENDITURE ON PUBLIC WORKS, &c.—*continued.*

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Commenced.	If Finished, actual amount of Expenditure.	If Unfinished, amount of Expenditure to 30th June, 1897.	Amount expended from 1st July, 1896, to 30th June, 1897.	Furniture.
COUNTRY— <i>continued.</i>							
MAITLAND EAST.				£ s. d.	£ s. d.	£ s. d.	£ s. d.
Court-house	Repairs, &c.	Loan and Con. Rev.	1896	36 0 1	.....	30 14 6	5 5 7
Post and Telegraph Office	"	Con. Rev.	"	5 0 0	.....	5 0 0	.....
Police Station	"	Con. Rev.	"	223 9 11	.....	223 9 11	.....
Lands and Survey Office	Erection	Loan and Con. Rev.	1895	4,750 18 10	.....	2,942 18 10	.....
"	Furniture	Con. Rev.	1896	11 9 4	.....	.....	11 9 4
MAITLAND WEST.							
Court-house	Erection	Loan {	1894	12,157 12 2	.....	4,211 9 0	.....
"	Furniture	& Con. {	1896	279 13 1	.....	.....	279 13 1
Post and Telegraph Office	Additions	Rev. {	1895	89 8 0	.....	19 8 0	.....
MUDGE.							
Gaol	Additions	Loan	1896	1,174 2 6	.....	1,174 2 6	.....
"	Repairs, &c.	Con.	"	16 16 11	.....	10 13 3	6 3 8
Court-house	Alterations	Rev.	"	110 0 0	.....	5 0 0	.....
Lock-up	Pump	Loan	"	1 11 6	.....	1 11 6	.....
MOREE.							
Court-house	Repairs	Con. {	"	20 12 10	.....	20 12 10	.....
Police Station	"	Rev. {	"	12 3 7	.....	12 3 7	.....
Post and Telegraph Office	Erection	Loan and Con. Rev.	1895	.....	1,589 9 0	847 13 5	.....
"	Fencing	Loan	1896	.....	160 0 0	160 0 0	.....
"	Furniture	"	"	2 7 8	.....	.....	2 7 8
Gaol	Repairs	"	"	8 0 5	.....	8 0 5	.....
Lands Office	Repairs, &c.	"	"	16 12 8	.....	6 9 2	10 3 6
MUSWELLBROOK.							
Court-house	Furniture	Con. Rev.	"	1 18 2	.....	.....	1 18 2
Police Station, &c.	Additions	"	"	22 10 0	.....	22 10 0	.....
Post and Telegraph Office	Repairs	"	"	5 0 0	.....	5 0 0	.....
MILPARINKA.							
Court-house	Erection	Loan	1895	.....	1,048 0 0	924 0 0	.....
"	Furniture	"	1896	78 17 8	.....	.....	78 17 8
MOSS VALE.							
Post and Telegraph Office	Kerbing roadway	Con. Rev.	"	30 5 6	.....	30 5 6	.....
"	Furniture	"	"	0 9 4	.....	.....	0 9 4
Court-house	Repairs	"	1895	46 12 6	.....	.....	.....
MURRUMBURRAH.							
Police Buildings	Erection	Loan	1896	1,003 1 0	.....	1,003 1 0	.....
Post and Telegraph Office	Addition	Loan and Con. Rev.	"	52 10 0	.....	52 10 0	.....
Lock-up	Erection	Loan	"	388 6 1	.....	215 18 11	.....
MENINDIE.							
Post and Telegraph Office	Repairs, &c.	Loan and Con. Rev.	"	279 14 0	.....	279 14 0	.....
MERRIWA.							
Post and Telegraph Office	"	Con. Rev.	1895	57 3 6	.....	32 3 6	.....
Court and Watch-house	"	Con. Rev.	1896	5 0 0	.....	5 0 0	.....
Police Buildings	"	Con. Rev.	"	34 3 6	.....	34 3 6	.....
MORPETH.							
Post and Telegraph Office	"	Loan	"	101 19 8	.....	96 0 0	5 19 8
"	"	Loan and Con. Rev.	"	130 19 6	.....	130 19 6	.....
Police Barracks	"	Loan	"	.....	85 0 0	85 0 0	.....
MURRURUNDI.							
Court-house	"	Loan and Con. Rev.	"	33 3 0	.....	27 13 0	5 10 0
Police Station	Addition	"	"	5 10 7	.....	5 10 7	.....
MULWALA.							
Court-house	Furniture	Con. Rev.	"	6 2 6	.....	.....	6 2 6
MOAMA.							
Post and Telegraph Office	Additions	"	"	.....	107 0 0	107 0 0	.....
MACLEAN.							
Lock-up	Erection	Loan	1895	1,666 11 0	.....	14 10 0	.....
MURWILLUMBAH.							
Court-house	Additions	Loan and Con. Rev.	"	685 15 8	.....	571 15 8	.....
"	Furniture	Con. Rev.	1896	52 2 7	.....	.....	52 2 7
MULLUMBIMBY.							
Police Station	Erection	Loan	"	160 0 0	.....	160 0 0	.....
MORUYA.							
Police Station	Furniture	Con. Rev.	"	8 19 6	.....	.....	8 19 6
MOUNT VICTORIA.							
Post and Telegraph Office	Erection	Loan and Con. Rev.	1895	1,003 18 5	.....	1,424 18 5	.....
"	Furniture	"	1896	24 1 9	.....	.....	24 1 9
MANILLA.							
Police Station	Repairs	Loan	"	2 10 0	.....	2 10 0	.....
MILTON.							
Court-house	Erection	Loan and Con. Rev.	1895	1,324 10 1	.....	70 19 0	.....
"	Furniture	Con. Rev.	1896	1 12 0	.....	.....	1 12 0
Post and Telegraph Office	Repairs	Rev.	"	0 5 0	.....	0 5 0	.....
MAUDE.							
Police Station	Addition	"	"	7 0 0	.....	7 0 0	.....
MINMI.							
Post and Telegraph Office	Erection	Loan	1895	1,086 13 7	.....	907 4 5	.....
Lock-up	Repairs	Con. Rev.	1896	28 2 0	.....	28 2 0	.....
"	Land	Loan	"	119 19 0	.....	119 19 0	.....
Court-house	Furniture	Con. Rev.	"	18 17 5	.....	.....	18 17 5
MILTHORPE.							
Post and Telegraph Office	Drain	Loan	"	8 0 0	.....	8 0 0	.....
MATHOURA.							
Court-house and Lock-up	Repairs, &c.	"	"	21 0 4	.....	0 10 6	20 9 10
MOSSGIEL.							
Police Station	Stove	Con. Rev.	"	5 16 1	.....	5 16 1	.....
Court-house	Furniture	"	"	10 5 4	.....	.....	10 5 4
MULBRING.							
Police Station	Repairs	"	1895	.....	75 3 0	25 3 0	.....
MUNDOORAN.							
Police Station and Lock-up	Additions, &c.	Loan and Con. Rev.	1896	43 6 2	.....	43 6 2	.....
MEROOL.							
Police Buildings	Repairs, &c.	Con. Rev.	"	4 13 11	.....	4 13 11	.....
MANDURAMA.							
Police Station	Addition	Loan and Con. Rev.	"	62 0 0	.....	62 0 0	.....
MARSDEN.							
Court-house and Lock-up	Erection	Loan	"	678 19 9	.....	678 19 9	.....

RETURN OF EXPENDITURE ON PUBLIC WORKS, &c.—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expenditure is defrayed.	When Commenced.	If Finished, actual amount of Expenditure.	If Unfinished, amount of Expenditure to 30th June, 1897.	Amount expended from 1st July, 1896, to 30th June, 1897.	Furniture.
				£ s. d.	£ s. d.	£ s. d.	£ s. d.
COUNTRY—continued.							
NEWCASTLE.							
Asylum for Imbeciles	Additions & Repairs	Con. Rev.	1895	973 16 4		722 6 0	
Court-house, &c.	Repairs	Loans and Con. Rev.	1896	26 12 2		22 10 2	4 2 0
Post and Telegraph Office		Loans	"	0 2 6		0 2 6	
Clerk of Works' Office	Incidental	Con.	"	15 14 6		15 14 6	
Water-police Barracks	Repairs	Rev.	"	0 12 6		0 12 6	
Custom House	Repairs, &c.		"	21 7 5		18 4 9	3 2 8
Boatmen's Quarters	Erection	Loans	"		1,123 0 0	1,123 0 0	
Seamen's Shed	Repairs		"	0 7 6		0 7 6	
Lock-up Gaol		Con.	"	11 5 0		11 5 0	
Examiner of Coal-fields	Furniture	Rev.	"	1 15 0			1 15 0
Pilots' Quarters	Repairs, &c.		"	253 5 0		253 5 0	
Lock-up (Lake Road)			"	117 9 0		117 9 0	
Police Barracks (Wall-street)		Loans and Con. Rev.	"	132 2 2		132 2 2	
Hospital	Additions	Loans	"	2,099 0 0		2,099 0 0	
NARRANDERA.							
Lock-up		Loans and Con. Rev.	"	268 0 0		268 0 0	
Court-house		Con.	"		182 0 0	182 0 0	
Police Buildings	Repairs	Rev.	"	42 9 7		42 9 7	
NARRABRI.							
Gaol		Loans	"	28 7 6		28 7 6	
Court-house		Con.	1895		262 15 6	84 0 6	
Post and Telegraph Office		Rev.	1896	1 7 0		1 7 0	
NOWRA.							
Court-house	Erection		1895	3,792 19 4		49 17 11	
"	Furniture	Loans.	1896	20 19 5			20 19 5
NYNGAN.							
Lock-up	Addition		"	11 5 6		11 5 6	
Court-house	Repairs, &c.	Con.	"	45 8 8		44 17 2	0 11 6
Crown Lands Office	Furniture	Rev.	"	0 2 6			0 2 6
NUNDALE.							
Lock-up, &c.	Additions	Loans and Con. Rev.	"	79 9 10		79 9 10	
Court-house		Con. Rev.	"	16 19 0		16 19 0	
NOWENDOC.							
Police Station	Erection	Loans.	"	482 4 1		482 4 1	
"	Furniture		"	5 18 4			5 18 4
ORANGE.							
Court-house		Con.	"	3 5 6			3 5 6
Gaol	Repairs	Rev.	"	6 17 9		6 17 9	
Post and Telegraph Office			"	23 19 0		23 19 0	
School of Arts			"	2 10 0		2 10 0	
OBBERON.							
Police Station		Loans.	"	6 13 0		6 13 0	
OXLEY.							
Police Station			"	4 3 10		4 3 10	
PENRITH.							
Police Station	Furniture	Con. Rev.	"	4 15 6			4 15 6
Court-house	Repairs	Loans and Con. Rev.	"	63 18 11		63 18 11	
"	Furniture	Con.	"	41 12 7			41 12 7
Post and Telegraph Office	Repairs, &c.	Rev.	"	68 19 6		68 4 6	0 15 0
PICTON.							
Post and Telegraph Office	Repairs	Loans	"	0 10 0		0 10 0	
PORT MACQUARIE.							
Police Station and Officers' Quarters	Repairs		"	7 18 0		7 18 0	
Gaol		Con.	"	0 13 11		0 13 11	
PARRARR.		Rev.	"				
Post and Telegraph Office	Repairs, &c.		"	7 15 0		7 15 0	
Court-house		Loans and Con. Rev.	1895	2,127 0 2		1,287 0 2	
Water Supply	Incidental	Con. Rev.	1896	0 5 0		0 5 0	
PATERSON.							
Court-house and Police Station	Repairs	Loans	"	17 17 0		17 17 0	
PILLIGA.							
Post and Telegraph Office	Additions		"	140 0 0		140 0 0	
Court and Watch-house	Repairs, &c.	Con.	"	116 5 0		116 5 0	
POONCARIE.		Rev.	"				
Police Station			"	5 10 0		5 10 0	
PAMBULA.							
Police Station		Loans	"	3 11 0		3 11 0	
PALMER'S ISLAND.							
Police Station		Loans and Con. Rev.	"	6 18 6		6 18 6	
PEAT'S FERRY.							
Police Office	Incidental	Con. Rev.	"	0 5 0		0 5 0	
QUIRINDI.							
Police Station	Repairs, &c.	Loans and Con. Rev.	"	75 19 8		75 19 8	
Court-house and Lock-up		Con. Rev.	"	50 5 0		50 5 0	
QUEANBEYAN.							
Gaol		Loans and Con. Rev.	"	62 3 7		52 16 0	9 7 7
Court-house	Furniture		"	4 18 0			4 18 0
Post and Telegraph Office	Repairs	Con.	"	5 0 0		5 0 0	
QUAMBOONE.		Rev.	"				
Court-house	Furniture		"	14 19 4			14 19 4
RAYMOND TERRACE.							
Post and Telegraph Office	Additions	Loans & Con. Rev.	1895	527 0 1		432 0 1	
RYLSTONE.							
Court-house	Alterations	Con. Rev.	1896	11 4 6		8 0 0	3 4 6
Police Station	Fencing	Loans	"	18 18 0		18 18 0	
Lock-up	Erection	Con.	1895	1,473 13 0			
ROBERTSON.		Rev. & Loans.	"	19 15 0		19 15 0	
Court and Watch-house	Additions		"	1,007 12 6		122 12 6	
Post and Telegraph Office	Erection		"	7 0 10			7 0 10
"	Furniture		1896				
RICHMOND.							
Post and Telegraph Office	Repairs	Con.	"	55 15 0		55 15 0	
Agricultural College	"	Rev.	"	7 17 6		7 17 6	
"	Irrigation		"		284 17 6	284 17 6	
ROCKLEY.							
Court and Watch-house	Furniture		"	6 13 6			6 13 6
RUGBY.							
Police Station	Tank	Loans	"	4 10 0		4 10 0	
SUTTON FOREST.							
Governor's Residence, "Hill View"	Additions	Loans and Con. Rev.	"	860 0 2		860 0 2	
"	Repairs	Con.	"	181 13 5		181 13 5	
"	Furniture	Rev.	"	217 17 1			217 17 1

RETURN OF EXPENDITURE ON PUBLIC WORKS, &c.—*continued.*

Work and where situated.	Whether Con- structing or under Repair.	Fund from which the Expense is defrayed.	When Commenced.	If Finished, actual amount of Expendi- ture.	If Unfinished, amount of Expenditure to 30th June, 1897.	Amount expended from 1st July, 1896, to 30th June, 1897.	Furniture.
COUNTRY— <i>continued.</i>				£ s. d.	£ s. d.	£ s. d.	£ s. d.
SINGLETON.							
Court-house	Repairs, &c.	Loans and Con. Rev.	1896	10 9 9	.....	10 9 9	.....
Lock-up Gaol	Erection	Loans	"	1,262 18 10	.....	571 18 10	.....
"	Repairs	Loans and Con. Rev.	"	5 10 3	.....	5 10 3	.....
SCONE.							
Court-house	Furniture	Con. Rev.	"	8 16 1	.....	.....	8 16 1
Police Station	Repairs .....	.....	"	.....	78 0 0	78 0 0	.....
SOPALA.							
Lock-up	Erection	Loans	1895	1,198 15 3	.....	1,118 15 3	.....
"	Additions .....	.....	1896	.....	150 0 0	150 0 0	.....
SPRINGWOOD.							
Lock-up	Repairs .....	.....	"	1 7 6	.....	1 7 6	.....
SUNNY CORNER.							
Court-house	Additions	Con. Rev.	1895	342 18 6	.....	188 15 0	.....
Post and Telegraph Office	Repairs .....	.....	"	90 12 6	.....	5 0 0	.....
Police Station	"	Loans	1896	.....	35 0 0	35 0 0	.....
ST. ALBANS.							
Court-house	"	Con. Rev.	"	2 3 9	.....	2 3 9	.....
SILVERTON.							
Court-house	"	Con. Rev.	"	1 12 6	.....	1 12 6	.....
STEWART TOWNS.							
Lock-up	"	Loans	"	66 0 0	.....	66 0 0	.....
STROUD.							
Police Station	"	Con. Rev.	"	6 9 5	.....	6 9 5	.....
Post and Telegraph Office .....	" .....	.....	"	41 15 0	.....	41 15 0	.....
TAMWORTH.							
Police Station	"	Con. Rev.	"	28 1 7	.....	28 1 7	.....
Court-house	Additions	Loans and Con. Rev.	"	17 16 0	.....	17 16 0	.....
Post and Telegraph Office	Repairs	Con. Rev.	"	1 15 0	.....	1 15 0	.....
Gaol	"	Rev.	"	4 16 6	.....	4 16 6	.....
Water Supply	Additions	Loans .....	"	.....	853 11 5	853 11 5	.....
TENTERFIELD.	Incidental	Con. Rev.	"	1 5 4	.....	1 5 4	.....
Post and Telegraph Office	Repairs	Loans	"	160 8 0	.....	160 8 0	.....
Police Station .....	" .....	.....	"	50 0 0	.....	50 0 0	.....
Court-house	"	Con. Rev.	"	40 3 6	.....	40 3 6	.....
TUMUT.							
Lock-up	Erection	Loans	1895	1,516 15 0	.....	343 15 0	.....
TEMORA.							
Court-house	Furniture	Con. Rev.	1896	2 18 6	.....	.....	2 18 6
TIBBOOBURRA.							
Court-house	Erection	Loans .....	"	.....	13 0 0	13 0 0	.....
TINONEE.							
Post and Telegraph Office	Repairs .....	.....	"	.....	58 17 0	58 17 0	.....
TERRAWANGEE.							
Police Station	Additions .....	.....	"	17 6 9	.....	17 6 9	.....
TRANGIE.							
Court-house	Furniture	Con. Rev.	"	0 2 0	.....	.....	0 2 0
TINGHA.							
Court and Watch-house	Fencing .....	.....	"	57 3 6	.....	57 3 6	.....
Police Buildings	Repairs .....	.....	"	12 8 0	.....	12 8 0	.....
TARCUTTA.							
Police Station	Pump	Loans	"	1 8 6	.....	1 8 6	.....
Post and Telegraph Office	Repairs .....	.....	"	84 12 0	.....	84 12 0	.....
TRIAL BAY.							
Prison	"	Con. Rev.	"	52 12 2	.....	52 12 2	.....
THE ROCK.							
Police Station	Tank	Loans	"	3 10 0	.....	3 10 0	.....
TAREE.							
Lock-up and Court-house	Additions	Loans .....	"	.....	410 9 2	410 9 2	.....
Post and Telegraph Office	Repairs .....	.....	"	22 18 6	.....	22 18 6	.....
URALLA.							
Court-house	Additions	Con. Rev.	"	13 5 6	.....	13 5 6	.....
URANA.							
Police Station	Repairs .....	.....	"	.....	165 3 9	165 3 9	.....
ULLADULLA.							
Post and Telegraph Office	Fencing .....	.....	1895	61 15 10	.....	.....	.....
WOLLONGONG.							
Gaol	Repairs, &c.	Loans & Con. Rev.	"	120 13 3	.....	120 13 3	.....
Court-house .....	" .....	.....	"	12 18 6	.....	12 18 6	.....
WAGGA WAGGA.							
Gaol	Repairs .....	.....	1896	5 11 0	.....	5 11 0	.....
Post and Telegraph Office	Additions	Con. Rev.	1895	67 0 6	.....	22 0 6	.....
Court-house	"	Rev.	1896	338 14 8	.....	338 14 8	.....
Police Station and Officers' Quarters	Repairs, &c.	Loans and Con. Rev.	1895	113 1 6	.....	33 1 6	.....
"	Additions .....	.....	1896	375 12 6	.....	375 12 6	.....
Public Buildings	Repairs, &c.	Con. Rev.	"	9 14 5	.....	6 8 11	3 5 6
Experimental Farm	Incidental .....	.....	"	6 0 0	.....	6 0 0	.....
Lands and Survey Office	Furniture	Rev.	"	5 3 5	.....	.....	5 3 5
"	Repairs, &c. ....	.....	"	1 14 9	.....	1 11 9	0 3 0
WINDSOR.							
Gaol	Repairs	Loans and Con. Rev.	"	33 1 3	.....	33 1 3	.....
WARIALDA.							
Court-house	"	Con. Rev.	"	78 10 0	.....	78 10 0	.....
Lock-up	Fencing	Loans and Con. Rev.	"	13 14 3	.....	13 14 3	.....
WILCANNIA.							
Court-house	Repairs, &c.	Con. Rev.	"	26 11 0	.....	26 11 0	.....
Clerk of Works' Office	"	Rev.	"	0 2 9	.....	0 2 9	.....
Lock-up Gaol	"	Loans and Con. Rev.	"	15 13 11	.....	15 13 11	.....
"	Additions	Loans	1894	.....	1,640 5 3	611 0 0	.....
WINGHAM.							
Post and Telegraph Office	Repairs, &c.	Con. Rev.	1896	9 8 1	.....	8 10 4	0 17 9
Court-house	"	Loans and Con. Rev.	"	92 0 0	.....	92 0 0	.....
WATTLE FLAT.							
Post and Telegraph Office	Land	Loans	"	30 0 0	.....	30 0 0	.....
WALGETT.							
Post and Telegraph Office	Repairs	Con. Rev.	"	5 10 2	.....	5 10 2	.....
Gaol	Repairs, &c. ....	.....	"	32 18 3	.....	22 6 7	10 11 8
Public Buildings	Additions, &c.	Rev.	"	2,563 5 6	.....	1,367 5 6	.....
WELLINGTON.							
Post and Telegraph Office	Additions .....	.....	1895	232 12 6	.....	122 12 6	.....
Court-house	"	Loans	1896	3 10 0	.....	3 10 0	.....

RETURN OF EXPENDITURE ON PUBLIC WORKS, &c.—continued.

Work, and where situated.	Whether Con- structing or under Repair.	Fund from which the Expense is defrayed.	When Commenced.	If Finished, actual amount of Expendi- ture.	If Unfinished, amount of Expenditure to 30th June, 1897.	Amount expended from 1st July, 1896, to 30th June, 1897.	Furniture.
COUNTRY—continued.				£ s. d.	£ s. d.	£ s. d.	£ s. d.
WENTWORTH.							
Gaol	Repairs	Con. Rev. {	1896	1 10 0	.....	1 10 0	.....
WEER WAA.							
Post and Telegraph Office	"	"	"	46 3 0	.....	46 3 0	.....
Court-house, &c.	"	"	"	8 10 0	.....	8 10 0	.....
Lock-up	Erection .....	" .....	"	.....	1,308 5 11	1,308 5 11	.....
WANAARING.							
Police Station	Repairs	Loans	"	23 5 0	.....	25 5 0	.....
WARATAH.							
Post and Telegraph Office .....	" .....	" .....	"	.....	93 0 0	93 0 0	.....
Court and Watch-house	Furniture	Con. Rev. {	"	4 0 0	.....	.....	4 0 0
WALCHA.							
Court-house	Repairs	"	"	0 15 0	.....	0 15 0	.....
WYALONG.							
Court-house	Additions	Loans and Con. Rev. {	"	35 18 6	.....	31 4 0	4 14 6
Lock-up	Erection	Loans .....	"	.....	1,272 13 4	1,272 13 4	.....
Post and Telegraph Office	"	Loans and Con. Rev. {	"	550 7 6	.....	550 7 6	.....
WYALONG WEST.							
Police Station	Alterations	"	"	22 17 6	.....	22 17 6	.....
WILSON'S DOWNFALL.							
Police Station	Repairs	Con. Rev. {	"	6 14 2	.....	6 14 2	.....
Court-house .....	" .....	" .....	"	.....	60 0 0	60 0 0	.....
WALBUNDRIE.							
Police Station	Repairs	Loans	"	4 1 9	.....	4 1 9	.....
Court-house	Furniture	Con. Rev. {	"	0 7 3	.....	.....	0 7 3
WICKHAM.							
Police Station	Repairs	Loans	"	41 9 10	.....	41 9 10	.....
WALLSEND.							
Court-house	"	Loans and Con. Rev. {	"	125 13 7	.....	125 7 0	0 6 7
WYAGDON.							
Police Buildings	"	Con. Rev. {	1895	129 2 0	.....	10 0 0	.....
WHITE CLIFFS.							
Police Station	Furniture	Con. Rev. {	1896	5 0 0	.....	.....	5 0 0
Court-house	Erection	Loans .....	"	.....	597 0 0	597 0 0	.....
"	Furniture	"	"	9 13 5	.....	.....	9 13 5
WOODSTOCK.							
Police Station	Temporary cell	Con. Rev. {	"	62 0 0	.....	62 0 0	.....
WOLLOMBI.							
Post and Telegraph Office	Additions	"	"	5 10 0	.....	5 10 0	.....
Police Station	Repairs	"	"	47 12 6	.....	47 12 6	.....
WALLA WALLA (Gerogery).							
Police Station	Erection	Loans	"	342 4 3	.....	342 4 3	.....
WOODENBONG.							
Police Station	Furniture	Con. Rev. {	"	0 6 6	.....	.....	0 6 6
YASS.							
Post and Telegraph Office	Repairs	Loans	"	7 0 0	.....	7 0 0	.....
Court-house	"	Con. Rev. {	1895	124 0 0	.....	.....	.....
YOUNG.							
Gaol	Additions	Loans .....	"	.....	1,619 5 7	1,490 5 7	.....
"	Repairs	Con. Rev. {	1896	57 19 2	.....	57 19 2	.....
Court-house	Repairs, &c.	Con. Rev. and Loans {	"	69 12 0	.....	68 12 0	1 0 0
Post and Telegraph Office	"	"	"	2 11 6	.....	2 11 6	.....
YANTARULLA.							
Police Station	Repairs	Loans .....	"	.....	85 0 0	85 0 0	.....
YETMAN.							
Police Station	Stove	"	"	4 5 0	.....	4 5 0	.....
MISCELLANEOUS.							
Ballot-boxes	"	"	"	0 17 0	.....	0 17 0	.....
Government Architect's Branch—Salaries	"	"	"	7,671 8 6	.....	7,671 8 6	.....
Establishment—Salaries	"	"	"	6,890 14 6	.....	6,890 14 6	.....
Travelling Expenses	"	"	"	2,053 5 4	.....	2,053 5 4	.....
Incidental and unforeseen	"	"	"	310 2 5	.....	305 2 11	4 19 6
Lighting Government Lamps	"	Con. Rev. {	"	1,031 17 3	.....	1,031 17 3	.....
Photographing Public Buildings	"	"	"	344 13 9	.....	344 13 9	.....
Public Buildings generally	"	"	"	2,106 1 6	.....	2,024 8 2	81 13 4
" Wages and Materials	"	"	"	3,462 8 0	.....	3,352 0 3	110 7 9
Work done for other Departments	"	"	"	23,720 3 10	.....	23,720 3 10	.....
				212,917 19 4	176,384 18 10	243,292 3 4	6,860 3 4

SUMMARY OF EXPENDITURE.

	£ s. d.
Loans	166,183 0 0
Revenue	60,249 2 10
Services for other Departments	23,720 3 10
total	£250,152 6 8

EXPENDITURE, Government Architect's Branch.

Year.	Loans.	Revenue.	Services for other Departments.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1863				95,052 10 2
1864				81,792 0 11
1865				51,063 19 8
1866				52,118 4 4
1867				73,202 6 4
1868				85,973 1 10
1869				96,313 9 0
1870				65,304 3 2
1871				67,651 6 5
1872				54,329 17 7
1873				96,875 11 9
1874				148,650 0 5
1875				199,982 6 7
1876				129,803 3 6
1877				164,889 17 11
1878				208,394 14 9
1879				457,317 1 5
1880				633,274 8 8
1881				421,896 13 7
1882				355,552 15 8
1883				367,377 18 5
1884				408,436 4 6
1885				428,881 5 8
1886				376,521 18 8
1887				281,033 12 11
1888				259,136 13 6
1889				225,574 16 9
1890				267,801 6 6
1891				334,253 7 6
1892				300,587 6 1
1893				212,147 16 5
1st January, 1894, to 30th June, 1895	113,928 13 8	93,059 2 8		206,987 16 4
1st July, 1895, to 30th June, 1896	141,672 13 10	65,508 7 3		207,181 1 1
1st July, 1896, to 30th June, 1897	166,183 0 0	60,249 2 10	23,720 3 10	250,152 6 8
Totals	£ 421,784 7 6	218,816 12 9	23,720 3 10	7,675,441 4 8

Roads and Bridges.

(XIV.)

Report of the Principal Assistant Engineer for Roads.

30 November, 1897.

I HAVE the honor to present, for the Minister's information, a report upon the work carried out by this branch, during the year ended 30th June, 1897, together with tabulated statements of the expenditure for the year, the lengths of roads and bridges of various classes directly or indirectly under the charge of the branch, and other statistical information.

From these returns it will be seen that the expenditure for the year, on roads and bridges, was £676,209 19s. 2d.* Of this sum £621,948 17s. 3d. was derived from Revenue, and £54,261 1s. 11d. from Loan Funds. Expenditure was, with a view to economy, restricted to the most urgent requirements, and the cost of maintenance reduced to the lowest possible limit, compatible with efficiency. The expenditure on roads, &c., from Revenue only, fell £1,794 7s. 4d. short of the sum made available by Parliament; this amount lapsed. Seeing that authority to proceed with the full expenditure was not given to the local officers until December, and that, consequently, they had only seven months in which to expend the full year's vote, this result may be considered satisfactory. A sum of £226,249 0s. 11d. remained unexpended from Loan Votes, and was carried forward.

To give some idea of the work involved in administration at head office, it may be stated that 23,293 papers were registered and dealt with; 17,078 vouchers received and examined; and 3,139 contracts let, amounting to £322,022.

Rents of district offices, ferry-men's quarters, &c., amounted to £1,620, and cost of cleaning to £347. The ferries leased were 45 in number. Forty-three others were subsidised, and nine worked by the Department. The total revenue from all sources under this head was £5,112 6s. 1d., while the cost of working, &c., was £10,162 3s. 10d.

Since last year's report was made, an entirely new system has been adopted in connection with the collection of tolls upon the ferries worked directly by the Department. Upon these ferries a system is now in force whereby every passenger receives a ticket showing the value of the fare paid, the date of issue, and the progressive number. It forms a check, first upon the collectors, and (as all tickets entitle the holder to return free within two days), upon the passengers as to the time of their return. This system has, so far, proved satisfactory, and it is anticipated that a substantial increase in the collections will result, by preventing passengers returning free after the two days allowed has elapsed.

Summarising the figures given in the tabulated statement attached, it will be seen that there are 39,874 miles of roads under the direct or indirect charge of the Department. Of that length, 27,404 miles are on schedule, 1,099 miles of municipal roads are subsidised by the Department, and 11,371 miles are unclassified. Of the total length, 12,631 miles are bush tracks, practically untouched, leaving 27,243 miles of cleared, formed, or metalled roads.

There are 2,842 bridges in the Colony, having 7,878 spans, with a total length of 267,964 feet, or 50 miles 60 chains. The culverts number 32,671, and have a total length of 486,907 feet, or 92 miles 17 chains; and there are 15,534 causeways, measuring 377,298 feet, or 71 miles 36½ chains.

There are 97 punts, 1 steam launch, 4 horse-boats, 69 flood-boats, and 120 other boats in use; also 10 punt-slips for execution of repairs. Ferry-men's, bridge caretakers', and other houses and buildings, the property of the Department, number 51.

During the year, 1,038 miles of new roads were cleared, and 666 miles wholly or partially constructed. Four miles 63½ chains of culverts and 5 miles 77½ chains of causeways were also constructed, and 5,008 rods of fencing erected.

The repairs and renewals of bridges are referred to in the report of the Assistant Engineer for Bridges appended.

Eight new punts and 9 boats were built during the year, and 60 punts and 56 boats overhauled and repaired.

The average number of men employed was 6,704, of whom 1,504 were employed directly by the Department, and 5,200 were contractors and their workmen.

The distance travelled by the district officers and their assistants, overseers, &c., in the execution of their duties, was 507,316 miles, 405,948 miles being by road, and 101,368 miles by rail; the total cost under this head being £6,820 14s. 11d.

With regard to repairs to bridges, the ASSISTANT ENGINEER FOR BRIDGES reports as follows:—

"During the year, continued attention has been paid to repairs, a sum of £29,297 19s. 11d. being expended for that purpose on 410 structures.

"It must be understood that these repairs are independent of renewals, where, owing to decay, it becomes necessary to entirely replace an old bridge. These renewals have been dealt with in my report on bridge construction, but it is not out of place to mention here that 53 bridges were totally renewed during the year at a cost of £36,850 4s. 7d.

"Occasion was taken in my last year's report to draw attention to the advantages which might be gained by the adoption of permanent substructures of stone, steel, or iron, when practicable, and the Under Secretary and Commissioner for Roads touched upon the matter in his report, pointing out that the great strength and durability of our timbers rendered their use the more economical in a majority of cases.

* This amount includes the expenditure, at 30th June, incurred in respect of new bridges completed and in progress.

cases. This is undoubtedly the case, but I think we should not lose sight of the fact that timber for bridge purposes is every year becoming more costly, while cement and labour, the two chief factors in the price of masonry, are cheaper than heretofore, and steel and iron are obtainable in a greater variety of forms, and at rates in marked contrast to those ruling twenty years ago. Although the better classes of timbers are well distributed upon the coast north from Sydney, there are large areas inland where bridge timber is impossible to be obtained, and to which it must be carried at great cost.

"It is surprising how few masonry piers are to be found in bridges throughout the Colony, situated as some of them are in districts where timber is exceedingly difficult to obtain, while stone is often plentiful; presumably this is due to timber having been more plentiful formerly, when skilled labour was more costly.

"In the case of the renewal of the Fish River Bridge at O'Connell, and in the repairs to the Abercrombie bridge, we have had this year, however, the advantage of admirably constructed masonry piers and abutments, which will outlive the superstructures now placed upon them, and doubtless others again, after these are decayed.

"At Berrima, also, masonry piers built thirty-seven years ago are receiving a new superstructure, and also being raised 8 feet.

"It is, of course, difficult to lay down any definite rule, but I think it may be taken that on an established route likely to remain permanent, and when timber is not available locally, given a good foundation and stone adjacent to the site, an additional expenditure of at least 25 per cent. in the first cost of the bridge would be fully justified, with the object of gaining a permanent substructure.

"The increasing use of truss spans, and the increasing length of those spans, now being built up to 154 feet each, are naturally increasing the demand for ironbark timber of a special class, viz., sawn flitches free of heart, of considerable size and length, and necessarily of the highest quality. These flitches are becoming difficult to obtain outside certain comparatively small areas on the coast, and it may become more economical, at no distant date, to substitute steel for such as are used in tension. These large spans, also, have a bearing upon the question of permanent substructures, as the piers used in connection with them being fewer, require greater strength, while the reduction in their number also reduces the proportion of their cost, as compared with the total cost of the bridge.

"Allusion has been made to the unequal distribution of timber in the Colony, and in that connection I may refer to the system of storing a quantity of timber in Sydney for use for repairs. The advantages claimed for that system in the last report are still evident, and upwards of 408,000 super. feet of timber have passed through the yard at Cockatoo Island during the year. The cost of this timber, though, as already stated, prices have advanced, still compares favourably with that obtaining under the old system, when timber was procured from the annual contractor as required, a system causing great delay.

"It is natural that out of the sum of £29,297 expended on repairs, a large proportion should have been spent on the decks of bridges, where actual wear reduces the life of the planking more than does decay. It is to be regretted that while we obtain such excellent results in wood-paving by placing the grain of the timber vertical, it has not yet been found feasible to lay the timber decks of bridges otherwise than with the grain horizontal. Doubtless to do so necessitates a double deck, the lower to carry the load, and the upper as a wearing surface only; still ultimate economy may yet be gained in this direction when heavy traffic has to be dealt with.

"Few of the repairs undertaken during the year need to be particularised; perhaps the most important is the repair and raising of the low-level bridge over the Hawkesbury River at Windsor. This is a timber-beam bridge on iron cylinders, having a total length of 403 feet. It was placed at a height of 11 feet above ordinary water level, and was frequently submerged. While repairing the superstructure, which was much decayed, occasion was taken to raise the bridge 8 feet, a course which was decided on after some hesitation, as it was feared that the additional leverage afforded to the flood-waters might cause the destruction of the bridge. The work was, however, accomplished at a cost of £4,409 3s. 3d., and a flood which has since passed over the deck caused no damage.

"The conversion of the Belabula River bridge at Carcoar from a truss to a beam bridge, a work which was finished early in the year, is of interest as showing an economical method of dealing with a bridge the trusses of which were decayed, while the deck system was owing to previous repairs in good order.

"At Brewarrina the machinery for lifting the span was removed and replaced by gear similar to that erected last year at Bourke, the result being that one man can easily lift the span, instead of two being required as heretofore. Arrangements have been made to carry out a similar alteration to the gear at Balranald.

"The system of carrying out repairs by means of skilled gangs was continued during the year with success, and on the whole I feel justified in stating that the improvement in the general condition of the bridges referred to in the last report has been sustained.

"Before closing this report I think it necessary to draw special attention to the operation of the regulation which makes municipalities responsible for the maintenance of the superstructures of bridges within municipal limits. In the case of large structures the Councils do not appear to be in a financial position to keep up the repairs, which are allowed to stand over while the Department is approached for a special grant. Ultimately it often becomes necessary for the Department to carry out the work under conditions much more unfavourable than would have been the case had the bridge been solely under the Department."

With respect to the remarks of the Assistant Engineer for Bridges in the above quoted report:—

(1.) As to the use, under certain conditions, of stone for the substructure of bridges, I quite concur. There can be no doubt that under certain circumstances where stone is cheap and timber scarce, and only procurable from distant places, it would be true economy to use the more lasting material at even a considerable increase in first cost. There is room for the exercise of discretion as each case crops up.

(2.) As to the increasing use of truss bridges of extreme spans. This tendency is one to be watched, and for several reasons to be restricted: The cost per foot run of bridge is, in ordinary cases, much in excess of the beam or smaller truss span; the ordinary maintenance is more costly; repairs are more costly and difficult in execution; the difficulty of getting the special lengths of first-class timber referred to by Mr. De Burgh is increasing, and will, in the future, more rapidly increase.

Accordingly,

Accordingly, not only does the necessity of obtaining these special pieces for the larger trusses add very materially to their cost at the present day; but, as time goes on, this cost will become still greater, and when the day comes for the renewal of these special pieces in the trusses, the cost of repairs will be immensely greater than they would be to-day. It might almost be predicted that, when that day arrives, it may be found impossible, or almost impossible, to obtain the necessary pieces in quantities sufficient to meet the requirements of the Department. For although the area of the Colony from which the supply of hardwood timber for bridge building and other works appears at the present day to be very large, this area exists on paper only. The localities from which really first-class hardwood of special class or character can be now obtained may almost be counted upon the fingers of one hand, and, when these places have been denuded of this kind of timber, it is difficult to see where it is to be procured from.

In the matter of the hardwood timber supply, it may be remarked, the Colony is burning the candle at both ends; increasing the consumption of the natural supply, and providing nothing in its place by plantation.

(3.) The life of truss bridges has been proved to be shorter than that of substantially constructed beam span structures.

(4.) It may also be kept in view that in the event of a comprehensive system of Local Government being adopted throughout the Colony, whereby each locality will be charged with the control of its own works, the maintenance of these bridges will fall to the respective municipal bodies. The result of past experience in this direction does not encourage the hope that this duty will be efficiently performed by these local bodies, where large or intricately constructed works, such as these larger truss bridges, are concerned.

Under all these circumstances the conclusion is, I think, a fair one that, where possible, and all other things being equal, it is desirable as a rule to adopt either beam span or the smaller truss span bridges, the exception being where the foundations are so bad or difficult (for instance, where the piers would be high) as to make piers more costly in proportion than the increased length of span.

PERCY SCARR,

Principal Assistant Engineer, Roads.

(XV.)

RETURN of Expenditure on Public Works carried on by Roads and Bridges Branch, from 1st July, 1896, to 30th June, 1897.

Work and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Commenced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES.					
Aberdeen, up Narrow Passage and Scrumlow			1882	£ s. d. 4 513 1 10	£ s. d. 430 17 3
Attunga to Somerton			1887	924 3 7	60 0 0
Attunga to Hall's Creek			1895	155 9 6	70 16 6
Amosfield towards Stanthope			1894	2,517 11 10	26 12 0
Amosfield to Acacia Creek			1890	3,990 0 4	435 11 11
Acacia Creek to Tooloom			1895	455 4 10	35 7 0
Acacia Creek, via Korelah, to White Swamp			1888	2,675 7 3	199 16 6
Alumny Creek, at Leonard's, to Grafton-Broadwater Road			1895	91 5 4	11 5 4
Armidale to Long Swamp			1887	794 15 7	76 16 0
Armidale to Mihi Creek			1879	4,514 14 5	102 17 0
Armidale to Grafton, via Hillgrove, to Perrett's			1864	92,751 11 6	616 2 9
Armidale to Yarrowick			1884	2,611 3 7	146 15 1
Armidale and Eastern Plains Road to Trevanna			1895	25 10 2	17 17 2
Armidale Road to Taylor's Arm			1894	1,970 5 9	323 5 2
Armidale Road to Wabra Creek			1890	242 10 10	69 6 3
Armidale to Pint Pot			1886	4,112 3 1	162 16 2
Armidale to Head of Hickey's Creek			1894	1,474 11 0	119 10 2
Armidale to Eastern Plains			1888	2,750 0 2	183 9 6
Armidale to Gostwyck			1884	2,017 7 4	101 0 8
Armidale to Duval			1890	455 3 6	44 12 6
Armidale, via Kelly's Plains, to Bald Knob			1894	261 6 1	84 12 4
Armidale to Castle Doyle			1886	1,130 6 2	48 6 0
Armidale to Timagog			1895	207 13 6	101 9 3
Armidale Road to Upper Five Day Creek			"	189 14 8	139 19 8
Ash Island Road			1896	35 3 0	35 3 0
Ashlea, via Marlee, to Upper Dingo Creek			1892	1,250 7 0	236 7 9
Adamstown to Lake Macquarie			1885	5,965 2 9	385 9 6
Arnold's to Appletree Flat			1874	19,324 0 2	594 5 11
Anderson's to Macleay Heads			1892	1,250 15 9	192 2 5
Anderson's to Unkyra Road			1895	94 0 0	41 12 0
Alstonville to Pearce's Creek			"	568 8 3	259 12 3
Approach to Meadowbank Station			"	563 13 11	189 18 3
Approach to Ulmarra Ferry			1896	25 8 7	25 8 7
Approach to Brook's Ferry			"	197 3 6	197 3 6
Approach to Eagleton Punt			"	49 17 0	49 17 0
Armidale up Mungay Creek			"	79 17 3	79 17 3
Aberglassyn, via Lowry's, to the River			"	14 0 0	14 0 0
Appin to Brook's Point			"	58 4 10	58 4 10
Appin to Broughton Pass			"	12 9 0	12 9 0
Appin to Macquarie Dale			"	19 19 0	19 19 0
Araluen and Moruya Road, via Kiora, to Moruya	Maintenance, repair, and construction.	Consolidated Revenue.	"	22 5 6	22 5 6
Araluen, via Bettowind, to Black Creek			"	40 0 10	40 0 10
Adelong to Hillas Creek			1895	352 9 0	127 6 6
Adelong Crossing to Bago			1892	2,687 13 2	447 11 10
Adaminaby, via Eaglehawk, to Jindabyne			1888	941 4 4	247 2 9
Adaminaby to Dry Plains			1895	119 15 9	44 16 0
Albury to Urana			1872	28,128 4 2	717 12 1
Albury and Corowa Road to Urana			1874	21,217 5 0	726 13 10
Albury to Boomanoomana			1864	75,543 6 11	1,113 1 9
Albury to Cookardina			1892	2,090 6 6	172 12 3
Albury to Boomanoomana Road, at 35½-mile in approach to Murray River Bridge			1896	70 0 0	70 0 0
Alick's Creek to Bloom Hill			1892	174 16 9	45 3 1
Alick's Swamp Creek Embankment			1895	101 15 9	99 5 1
Awaba to Freeman's Waterholes			"	528 2 3	285 4 2
Armidale and Kangaroo Hills Road to Donald Public School			1896	23 18 0	23 18 0
Armidale and Kangaroo Hills Road to Pint Pot, Chandler River			"	23 19 0	23 19 0
Armidale Road, up Nul'a Nulla Creek			"	3 0 0	3 0 0
Ashford, via Severn River, to Duncan, Marome Creek			"	29 8 0	29 8 0
Aberfoyle River, Wire Rope Crossing			"	9 13 5	9 13 5
Amaroo Railway Station to Keenan's Bridge			"	25 0 0	25 0 0
Atkins' Road, Pennant Hills			"	5 0 0	5 0 0
Abbott's Road, Seven Hills			"	30 0 0	30 0 0
Byangum up Middle Arm			1894	459 12 11	144 14 1
Byangum to Dumbille Creek			1892	250 17 1	44 10 4
Burringbar to Moball			1888	1,306 7 10	1 8 14 10
Burringbar to Upper Burringbar			1894	266 4 3	79 18 0
Burringbar to Cudgera			1895	410 2 10	357 14 0
Bexhill to Woodlawn			1891	278 1 7	28 9 9
Bexhill to Monticollum			1884	7,589 4 2	547 14 10
Bexhill to Monticollum Road to Roads Clunes to Staggs			1896	42 15 11	42 15 11
Bexhill to Numulgi School and Cross Selections			1890	603 1 6	67 19 2
Ballina to Cooper's Shoot			1883	16,894 11 2	621 13 3
Ballina, via North Creek, to Byron Bay			1887	4,055 5 8	314 1 1
Beechwood to Rolland's Plains			1885	1,549 15 9	199 3 6
Boggy Creek to Cottee's			1892	289 2 1	45 15 6
Blakebrook to Dunoon			1890	593 3 9	38 0 2
Blakebrook to Petersen's			1894	479 3 9	194 14 0
Blakebrook to Foxground			1896	266 4 1	266 4 1
Bogaldie towards Pilliga			1893	331 9 5	84 0 2
Brush Grove, via Bluff Point, to Maclean			1887	2,353 10 7	317 16 5
Brush Grove, via Tyndale, to Maclean			1890	1,354 16 5	150 19 3
Barney Downs to Millera			1883	3,278 10 4	151 4 6

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com- menced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount Expended from 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES—continued.					
Bingera to Top Bingera			1895	£ 94 0 0	£ 4 2 0
Bingera, Narrabri Road, to Diamond Mines			1896	44 18 0	44 18 0
Bingera to Warialda			1884	9,937 13 11	792 12 3
Bingera to Bora			1895	50 0 0	38 1 0
Bingera to Bundarra			1878	5,740 11 9	291 13 9
Bingera to Barraba			1891	8,407 11 4	1,068 13 8
Bingera, via Pallal, to Eulowrie			1888	1,214 12 8	99 19 6
Bingera, via Ginerol, to Yagobie			1895	464 2 5	232 6 10
Black Creek, viz Pretty Gully, to Tooloom			1891	2,249 9 10	439 8 0
Barraba to Crow Mountain			1895	60 0 0	10 0 0
Barraba to Bundarra			1894	2,852 2 5	183 14 8
Barraba, via the Gap, to Horton River			1893	874 11 3	597 1 9
Barraba to Burindi			1896	79 0 0	79 0 0
Bendemeer to Hall's Creek			1895	205 8 1	135 12 10
Bow to Idaville			1893	261 13 7	11 5 7
Bobbiwoa Creek to Rocky Creek				802 15 7	99 3 0
Booralong towards Aberfoyle			1888	1,517 18 3	122 2 1
Branxton to Dalwood Bridge			1895	135 0 0	107 0 0
Branxton, via Elderslie, to Singleton and Gresford Road				260 0 0	160 0 0
Farlow's Mill to Howard's			1894	142 5 4	37 11 4
Blaxland's Flat Roads				308 10 10	14 12 0
Blaxland's Creek Crossing Approaches			1896	22 0 0	22 0 0
Balalla to Bundarra			1890	1,171 5 5	166 18 3
Ben Lomond, via Hockey's and Tarrant's, to Guyra, Inverell Road			1895	71 0 11	19 12 0
Bellingen Road up Missabotti Creek			1882	8,151 3 1	220 15 9
Bellingen, via Bowraville, to Congarini			1895	688 5 6	645 13 6
Boat Harbour to Cowlong			1887	1,968 18 5	194 4 0
Baker's Creek to West Hillgrove			1895	125 17 9	85 17 9
Bowraville to Upper South Arm			1890	927 6 3	152 16 6
Bowraville to Upper North Arm			1879	5,245 10 11	230 11 4
Burril Creek to Krimbriki			1890	1,111 2 0	153 9 11
Bulladelah down the Myall			1891	481 4 11	107 3 1
Bulladelah to Bungwall			1878	9,862 15 1	466 9 4
Bulladelah to Larry's Flat			1892	3,023 15 4	446 8 2
Bulladelah to Coolongoolook			1895	1,841 8 10	1,774 14 10
Booral to Bulladelah			1876	11,090 19 2	707 2 6
Bendolba to Wangat				5,227 9 6	314 8 0
Bullock Wharf to Coolongoolook			1894	854 5 0	297 12 10
Blandford to Isis River			1882	2,676 9 10	100 9 0
Blandford, via Box Tree, to Timor			1895	258 12 9	100 12 3
Barrington to Cobark Road			1892	305 16 6	305 16 6
Brandy Creek, via Goorangoola, to Dry Creek	Maintenance, repair, and construction.	Consoli- dated Revenue.	1895	118 9 6	67 0 0
Barker's Lodge to Oakdale				177 6 7	114 7 0
Berowra to Cowan Creek Relief Works			1896	7 12 2	7 12 2
Balgowlah, via French's Forest, to Gordon			1895	214 4 6	147 11 2
Belltrees to Stewart's Brook			1889	2,789 17 11	136 11 4
Barrenjoey to M'Garr's Creek			1895	244 10 2	112 0 0
Bald Knob, via Dundee, to Emmaville				336 7 0	131 16 5
Boolooloo Bridge to Goondiwindi				1,486 4 4	192 7 1
Belah to Tannabah				242 1 0	100 0 0
Baulkham Hills Toongabbie Road to Wharf at Baxter's			1896	10 0 0	10 0 0
Best's at Middle Dural towards Kenthurst				10 0 0	10 0 0
Black Mountain to Guyra			1895	113 8 8	58 6 4
Broken Back Bridge Road at Purser's to Baulkham Hills			1896	10 0 0	10 0 0
Boyce's to Peshurst			1895	200 0 0	100 0 0
Brookstead to Gara			1895	55 19 8	36 13 0
Burns Bay Road				180 0 0	106 17 5
Blackman's Point to Ennis Ferry				119 7 9	104 5 0
Blackman's Point and Ennis Road to Walcha Road				54 16 0	30 0 0
Berrigan to Mulwalla			1891	643 0 2	129 17 4
Berrigan to Momalong			1896	55 0 0	55 0 0
Berrigan to Saranake			1895	139 15 6	104 8 0
Berrigan and Saranake Road to Warmatta			1896	39 18 0	39 18 0
Berrigan to Finlay			1892	463 15 1	127 17 9
Berrigan to Tocumwall			1895	444 5 2	192 18 0
Bowral to the Briars			1892	637 16 10	75 12 6
Bowral to Robertson			1874	18,571 16 9	531 15 11
Bundanoon to Wingello Road			1888	1,344 0 2	75 10 2
Bundanoon to Captain's Flat			1896	221 13 5	221 13 5
Bundanoon to Korela			1895	382 13 5	201 17 9
Bundanoon to the Gullies (compensation)			1896	16 0 7	16 0 7
Bulli, via Coal Cliff, to Blue Gum Forest			1882	4,494 0 8	392 7 7
Bulli Pass to Cataract River			1883	1,569 3 8	117 10 2
Burrawang to Robertson			1884	1,308 14 10	49 10 4
Berrima to Bowral			1882	2,338 8 10	115 16 0
Berrima, via Soapy Flat, to Joadja Creek			1890	1,012 9 11	159 14 10
Blenkinsopp's to Myra Vale				997 3 6	91 10 6
Binalong to Burrowa			1887	14,304 2 3	353 3 5
Bungendore to Captain's Flat			1889	10,312 12 6	1,184 14 2
Bungendore to Doughboy Hill			1888	4,514 2 11	63 18 4
Bungendore to Black Range			1881	1,079 19 10	41 17 6
Bungendore to Gundaroo			1893	521 5 5	120 15 8
Bungendore, Gundaroo Road, at Racecourse, to the Common			1896	52 2 3	52 2 3
Bookham to Illalong			1884	830 18 5	67 14 0
Bookham to Chidowla			1885	973 15 9	73 6 0
Bookham to Cooradigbee			1881	1,756 6 4	123 5 7

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com- menced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount Expended from 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES—continued.					
Burrowa to Breakfast Creek			1892	£ 972 13 7	£ 165 11 6
Burrowa to Narrawa.....			"	1,469 19 6	231 16 9
Burrowa to Kenya.....			1885	2,196 3 11	83 8 6
Burrowa to Cunningham			1892	1,555 7 9	249 3 7
Burrowa, Narrawa Road, near Rugby, via Gardens to Burrowa			1896	17 7 1	17 7 1
Bredbo Station to Nimbo			1890	20,952 19 0	262 0 2
Braidwood to Animbo			1893	1,393 12 10	279 12 4
Braidwood to Elrington.....			1872	5,494 17 3	208 4 0
Braidwood to Nerriga			"	2,988 9 6	273 4 9
Braidwood to Queanbeyan			1890	3,859 8 3	212 12 0
Braidwood and Tarago Road, via Larbert, to Lower Boro and Tarago			1881	2,466 0 1	199 19 5
Braidwood to Sergeant's Point			"	3,088 8 11	145 16 6
Braidwood, via Reidsdale, to Bell's Creek			1872	3,223 0 2	108 9 2
Braidwood, via Bell's Creek, to Araluen			1864	20,697 5 2	497 11 8
Braidwood to Nelligen (Clyde Road)			1863	30,321 9 6	1,044 7 0
Bodalla, via Eurobodalla, to Dignam's Creek			1893	1,703 7 7	392 14 0
Bodalla to Wagonga Heads			"	1,019 0 1	110 15 10
Bega, via Wapengui and Murrah, to Bermagui			1877	8,687 18 8	269 17 3
Bega, via Jellat Jellat, to Tathra			1873	12,487 19 6	480 0 0
Bega to Brogo (Old Road)			1890	996 9 0	101 6 0
Bega to Pambula			1895	343 17 7	223 14 3
Bega to Brianderry			"	53 8 0	32 0 0
Bega to Nimitybelle			"	879 3 8	588 6 3
Bega to Nimitybelle, at Bembooka, to Sam's Corner			1896	122 0 0	122 0 0
Bombala to Delegate.....			1871	13,730 12 11	636 7 2
Bombala to Delegate Road, at Saucy Creek, to Cambalong			1896	26 4 2	26 4 2
Bombala, via Buckalong and Gunningrath, to Bobundarah			1881	2,420 5 6	163 4 2
Bombala, via Mahratta and Mila, to Cragie			1892	721 6 1	146 7 9
Bombala to Buckley's Springs.....			1889	274 2 9	8 15 9
Bombala to Nimitybelle			1892	6,355 19 3	1,159 1 11
Bombala to Merimbula.....			1864	94,890 19 7	1,523 10 1
Bombala-Merimbula, &c., to Bombala Common			1895	40 10 0	24 16 0
Bombala-Delegate Road to Burrumbooka			"	36 12 5	13 2 0
Bombala to Delegate Road, at One-mile Post, to Burrumbooka			1896	19 14 9	19 14 9
Bobundarah to Adaminaby			1880	3,915 10 8	192 16 11
Burrogate to Honeysuckle			1882	1,187 11 7	18 4 0
Buckley's Crossing to Jinenbuen.....			1889	333 14 11	70 3 4
Buckley's Crossing to Maffra			"	286 17 4	58 15 0
Buckley's Crossing, via Bolocco, to Jindabyne			1883	2,657 12 11	148 17 0
Berridale to Buckley's Crossing			1891	403 9 11	63 11 3
Billylingra, via the Gap, to Adaminaby.....			1890	2,059 15 0	200 13 5
Brungle Bridge to Gobarralong Ford			1888	1,864 13 8	172 6 0
Brungle, via Wyangle, to Toomoroma Road			1889	1,444 7 4	262 1 9
Balranald to Swan Hill Ferry			1887	2,287 6 7	79 15 3
Booligal to Hillston			1880	3,838 18 9	46 12 11
Booligal to Ivanhoe			1892	1,918 1 11	220 11 9
Booligal to Ivanhoe Deviation at 5-mile Gate			1896	100 0 0	100 0 0
Bogalong to Marsden			1883	6,445 13 1	170 0 0
Berry to Barrengarry			1893	2,438 10 11	534 7 6
Brooman to Nellegen.....			"	1,218 1 6	229 4 0
Bolocco to Popong.....			1895	67 9 4	24 5 0
Bermagui to Quaama			1890	849 17 1	71 16 8
Bermagui to Cobargo			1895	1,112 3 7	364 4 4
Bermagui to Tilba Tilba			"	510 5 6	200 0 0
Bow's Lane, Corowa			"	149 18 8	17 13 0
Baulkham Hills to Dural.....			1894	968 11 10	183 6 11
Blacktown, via Riverstone, to Box Hill			1873	4,051 1 2	140 3 7
Blacktown, via Seven Hills, to Windsor Road			1895	422 10 11	243 1 3
Blacktown Road, via Dight's Hill, towards Richmond Bridge			1896	34 12 0	34 12 0
Bulga Road to West Portland.....			"	51 6 0	51 6 0
Barham to Newrer's Bridge.....			1895	237 13 10	121 3 10
Bell Station to Mount Wilson.....			1896	167 0 0	167 0 0
Bingie to Dwyer's Creek			1895	68 8 0	41 18 0
Barrengarry to Nowra			"	767 8 3	385 5 0
Barrengarry and Nowra Road to Lumsden's Corner			"	170 2 8	103 1 11
Bunters to Myra Vale			"	337 6 7	147 14 7
Binda, via Junction Point, to Tuena			"	288 8 5	103 19 9
Bannister's to Gorman's, near Gullen			"	105 17 9	15 18 0
Belmont Road, via Box Hill, to Bell's Line			1896	74 15 2	74 15 2
Bell's Line to Putty			1871	14,001 19 3	773 3 11
Blaxland's Ridge, via Moran's Rock, to Upper Colo			1888	1,274 16 2	300 2 6
Bowenfels to Lidsdale			1890	1,388 15 0	239 11 2
Bowenfels to Stony Point.....			1895	328 13 10	143 9 6
Bowenfels to Tarana			1896	136 16 9	136 16 9
Blackheath to Hat Hill			1895	171 17 9	118 15 0
Blackheath to Megalong			"	602 11 0	209 10 3
Bathurst to Icely			1893	696 11 9	168 6 3
Bathurst, via Blayney and Cowra, to Grenfell.....			1870	118,517 1 4	2,013 11 9
Bathurst, via George's Plains, to Burruga.....			1895	4,167 13 11	1,665 11 2
Bathurst to Bellview.....			"	237 0 5	92 18 9
Bathurst and Monkey Hill Road to Elrington Public School			1896	19 13 4	19 13 4
Blayney, via Grahamstown, to Millthorpe			1883	3,526 13 1	292 18 9
Blayney to Neville.....			1877	11,263 13 5	280 15 3
Blayney to Forest Reefs			1880	4,714 10 1	204 2 8
Blayney to Guyong			1881	3,068 7 6	117 5 0
Blayney to Barry			1883	1,768 0 4	141 19 9

Maintenance,
repair, and
construction.

Consoli-
dated
Revenue.

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com- menced.	If Unfinished, amount of Expenditure to 30 June, 1897.			Amount expended from 1 July, 1896, to 30 June, 1897.					
ROADS AND BRIDGES—continued.							£	s.	d.	£	s.	d.
Blayney to Rockley			1895			887 5 8	374	14	7			
Blayney to Brown's Creek			1896			276 1 9	276	1	9			
Bull Ridge to Isabella River			1895			251 17 3	42	0	0			
Brundah towards Marengo			1890			957 4 7	97	7	2			
Boree to Manildra			1895			179 4 0	90	0	0			
Bourke to Barrington			1888			3,878 2 4	215	5	3			
Bourke to Hungerford			1885			7,530 19 2	601	10	3			
Bourke to Wanaaring			"			7,603 15 4	787	2	11			
Bourke to Wilcannia Crossing, near Woodlands			1896			1 8 0	1	8	0			
Bogan Gate to Dandaloo			1895			192 0 0	92	4	0			
Broken Hill to Menindie			1892			957 12 4	104	6	0			
Broken Hill to Cobham			1887			2,673 5 10	215	9	6			
Broken Back Bridge to Pennant Hills			1891			1,097 16 6	120	14	5			
Brolgan Tank to Condobolin			1894			661 11 7	141	11	0			
Bridgewater to Ulundry			1895			704 18 10	305	14	1			
Balmain, over Iron Cove and Parramatta River Bridges, to Ryde			1893			3,140 15 5	656	13	6			
Bankstown to Rookwood Station			1886			2,678 1 0	10	19	4			
Bettington's Lane, Dundas			1891			201 3 4	26	13	4			
Black's Road, from Fagan's Road to Calabash Road			1896			5 0 0	5	0	0			
Bay Road, from Calabash Road towards Lloyds			"			15 0 0	15	0	0			
Bevan's Road, from Berowra Creek to Bayfield			"			25 0 0	25	0	0			
Brewarrina to Eugowra			1895			79 15 7	4	4	0			
Brewarrina to Eugonia Embankment, Biree River Bridge			1896			47 4 4	47	4	4			
Brewarrina to Barrawin Road			1895			45 17 1	14	14	6			
Belmore Road			1896			32 10 0	32	10	0			
Bottle Forest Road			"			19 19 7	19	19	7			
Barrington to Junction of Barnett and Little Manning Rivers			"			89 1 0	89	1	0			
Baker's Creek, via Herbert Park, to Lockalier			"			72 11 2	72	11	2			
Bingera to Rockley Creek			"			138 4 10	138	4	10			
Budgeon to Gilgandra			"			56 12 10	56	12	10			
Binna Burra to Byron Bay			"			321 9 5	321	9	5			
Bexhill to Pearce's Creek			"			224 16 0	224	16	0			
Broughton Pass to Wilton Post Office			"			34 5 3	34	5	3			
Ballina, Tenterfield Road, to Savilles			"			76 19 10	76	19	10			
Blaxland's Crossing to Werombi Post Office			"			36 2 0	36	2	0			
Blanchett to Burn's Point Ferry			"			383 19 5	383	19	5			
Bargo River to West Bargo			"			73 14 7	73	14	7			
Brawstone to Coutt's Crossing			"			55 9 1	55	9	1			
Bargo River to Hill Top, with branch to Buxton			"			102 10 8	102	10	8			
Bellingen Road up South Arm			"			162 19 0	162	19	0			
Barrengarry to Yarra Yarra			"			39 8 6	39	8	6			
Bungwall to Forster			"			167 0 0	167	0	0			
Barrengarry to Parish's Farm			"			61 14 6	61	14	6			
Branxton to Pokolbin Hills and Cessnock Road			"			74 0 0	74	0	0			
Bendula Road to Jack's Corner			"			63 0 0	63	0	0			
Branxton to Hunter River at McMullan's			"			27 0 0	27	0	0			
Baulkham Hills School to Toongabbie			"			50 0 0	50	0	0			
Bullock Wharf down right bank, Mangrove Creek			"			65 7 8	65	7	8			
Blackheath to Govett's Leap			"			9 5 0	9	5	0			
Bullock Wharf to head of Popran Creek			"			75 14 0	75	14	0			
Beaconsfield to Little River			"			71 10 2	71	10	2			
Bullock Wharf to Great North Road at Buckley			"			56 4 2	56	4	2			
Bumble Hill to Mangrove Creek			"			78 14 8	78	14	8			
Broke to Warkworth			"			86 6 0	86	6	0			
Broke, via Nine Mile Creek, to Muninbah and Singleton Road			"			37 0 2	37	0	2			
Broke Road, via Warkworth Road, to Jerry's Plains Road			"			34 0 0	34	0	0			
Bendemeer to Retreat Station			"			18 4 0	18	4	0			
Barber's Creek to Barrengarry			"			538 7 0	538	7	0			
Burradoo to Kangaloon Road			"			72 18 8	72	18	8			
Bowning to Binalong			"			170 15 5	170	15	5			
Boxtree Road to Sandy Creek			"			28 7 0	28	7	0			
Bulga Ellenborough Road			"			2 6 6	2	6	6			
Bawden's Bridge to Jacky's Creek			"			5 0 0	5	0	0			
Back Creek to River Bank			"			29 19 9	29	19	9			
Bilumbil Creek to Cowan's			"			238 18 4	238	18	4			
Burke's Grant Road through			"			240 6 5	240	6	5			
Ballina to Byron Bay Road to the Beach			"			90 16 10	90	16	10			
Belmont Road to Dudley Road			"			27 5 6	27	5	6			
Blaxland's Ridge Deviation			"			14 15 0	14	15	0			
Bevondale to Narrawa			"			17 10 0	17	10	0			
Bermagui to Cooma and Eurobodalla (Exploration)			"			161 11 10	161	11	10			
Bywong to Road Gininderra towards Bungendore			"			14 18 0	14	18	0			
Bonnie Doon to Goulburn-Windellema Road			"			51 6 2	51	6	2			
Burke's Paddock to Demondrill Butter Factory			"			31 7 9	31	7	9			
Bomaderry Railway Station to Nowra Bridge			"			55 9 0	55	9	0			
Bombala to Delegate Road near Ten-Mile to Nelbothera			"			22 4 5	22	4	5			
Bullenbong Creek Crossing			"			30 0 5	30	0	5			
Black Range Public School to Chinese Gardens			"			17 9 6	17	9	6			
Bungowannah Cemetery to Moorwatha			"			106 19 3	106	19	3			
Bongongolong to Coolac Railway Station			"			46 11 6	46	11	6			
Crabb's to Lloyd's			1894			314 0 3	66	4	8			
Cowlong to Marom Creek			1890			1,819 18 6	237	2	9			
Clunes to Stagg's			1887			1,475 11 0	152	15	3			
Clunes to McKenzie's			1890			937 2 9	91	9	0			
Clunes to Gibson's			1895			60 0 0	26	18	7			
Clunes to Beardow's			1896			154 7 5	154	7	5			

Maintenance,
repair, and
construction.

Consoli-
dated
Revenue.

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com- menced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES—continued.					
Clunes to Biona Barra			1887	£ s. d. 7,078 5 11	£ s. d. 232 17 5
Casino to Mount Lindsay Road at Reynold's			1896	35 1 0	36 1 0
Casino to Mount Lindsay			1876	16,120 19 11	851 8 4
Casino to Coraki			1886	6,373 0 3	611 14 10
Casino to Ellangowan			1890	2,071 15 7	157 7 0
Casino to North Codrington Road to Tomki Public School			"	268 6 8	147 6 3
Casino to Myall Creek			1892	2,442 4 10	470 3 11
Coraki to Broadwater			1873	28,131 5 11	1,068 12 4
Coraki to Wyrallah			1889	1,447 18 8	161 11 7
Coraki to Tuckurimbal			1888	2,155 0 5	293 4 0
Coraki to Tuckurimbal Road at N.E. corner of portion 26 to River Bank			1892	530 3 4	103 0 6
			1896	12 5 10	12 5 10
Coraki to Myall Creek			1892	1,342 17 8	118 11 9
Coraki to Swan Bay			1893	403 12 6	77 15 0
Coraki-Wyrallah Road to North Codrington Wharf			1896	59 19 3	59 19 3
Chatsworth to Woodburn			1890	5,552 19 1	1,132 11 5
Calabash Ridge to Calabash Bay			1894	110 0 0	15 0 0
Copmanhurst, via Morrison's, to Smith's Creek			1896	25 7 0	26 7 0
Carramana to Seeland's			1890	225 16 11	43 8 6
Carramana to Eatonswill			"	549 10 5	75 10 9
Coff's Harbour to Sharp's			"	9,257 13 1	810 15 8
Coolatai to Wallangra			1884	653 6 7	22 10 0
Cobbedah to Rocky Creek			1874	13,515 19 5	179 7 0
Cregan's, via Roschill, to Rocky River			1886	710 0 4	42 16 2
Collarendabri to Narrabri			1893	644 6 6	164 11 0
Collarendabri to Angledool			1892	976 3 11	187 1 6
Coonamble to Tundabrine Creek			1895	275 8 1	110 1 0
Coonamble to Combogolong			1892	1,207 5 5	216 6 7
Coonamble to Gilgandra			1891	2,821 4 1	499 19 3
Coonamble towards Baradine			1894	314 9 0	74 12 8
Coonamble to Warren			1892	2,050 7 1	548 17 6
Coonamble towards Billaroy			1895	123 0 9	29 19 11
Congarini, up Taylor's Arm			1885	4,787 14 4	691 17 1
Congarini to Rolland's Plains			1894	5,938 5 9	1,256 8 9
Congarini Road, at Unkya Public School, to Tamban Road			1896	29 3 0	29 3 0
Coast Road to Rolland's Plains			1894	303 12 7	67 7 0
Coast Road to Campbell's			1889	1,542 12 10	59 3 5
Coast Road to Perrett's			1894	4,105 15 3	1,013 7 0
Coast Road to Sullivan's			1895	419 0 4	164 7 6
Cooperbrook, via Cattai Creek, to Harrington			1884	1,988 14 10	118 2 7
Cedar Party Road to Taree and Wingham Road	Maintenance, repair, and construction.	Consoli- dated Revenue.	1891	897 4 5	97 14 9
Cedar Party Road to Nambucca Heads			1893	376 2 4	91 17 6
Cedar Party Road to Dimond's			1891	206 19 6	10 0 0
Cedar Party Creek up Killabakh Creek			1890	939 9 5	246 9 11
Cameron's Crossing to Morill Creek			1891	2 0 6 1	13 1 6
Cessnock, via Mount View, to Millfield			"	1,864 11 7	252 1 0
Cessnock to Allandale Station			1895	432 14 1	360 14 1
Cessnock to South Boundary of Josephson's			1884	2,311 14 11	100 1 7
Cooranbong to Mandalong			1896	124 12 6	124 12 6
Cooranbong to Dora Creek Platform			1887	864 14 4	98 1 1
Cooranbong to Freeman's Waterholes			1892	1,103 16 5	128 3 10
Cooranbong and Humphries' C.P. to top of Watagan Mountain			1893	885 15 2	318 0 7
Charlestown to Dudley			1889	2,066 14 11	66 1 7
Charlestown to Lake Macquarie at Warner's Estate			1895	135 11 2	71 11 2
Clarencetown, via Glen William, to Brookfield			1896	180 0 0	180 0 0
Clarencetown to Dungog			1877	21,379 7 8	879 13 2
Clarencetown to Limeburner's Creek			1884	3,960 9 9	232 2 3
Clarencetown to Thalaba			1896	163 9 2	163 9 2
Coonabarrabran to Bomera			1891	2,437 15 9	185 6 10
Coonabarrabran to Timor Rock			1895	95 0 0	50 0 0
Coonabarrabran to Mundooran			1891	6,096 12 11	708 1 2
Coonabarrabran to Malally			1887	5,782 0 0	565 12 1
Coonabarrabran to Black Stump			1892	2,581 2 0	300 0 0
Coonabarrabran, via Madderty's, to Ulamamba			1895	150 0 0	50 0 0
Coonabarrabran to Tenandea			"	727 12 0	327 12 0
Currabubula to Pillaway			1891	573 14 0	80 0 0
Chandler Bridge to foot of Jeogla Mountain			1893	1,179 2 10	285 1 9
Copeland-street, Beecroft, to Terry's Creek			1896	86 18 2	86 18 2
Commandant Hill to Port Macquarie			1894	139 14 2	39 14 9
Copeland-street, Beecroft, to Pennant Hills			1896	10 12 0	10 12 0
Coolah to Cassilis			1895	319 2 0	150 0 0
Cooper's Flat Road, up Karakoora Creek			1896	34 0 0	34 0 0
Chatham to Taree and Wingham			1891	209 13 8	70 14 6
Copmanhurst to Upper Smith's Creek			1896	75 0 0	75 0 0
Croki to Main Road			1894	82 6 9	9 7 6
Cochran's to Duncan's			1892	172 1 10	21 8 0
Cheer's Hill to Algomera Junction			1890	1,653 16 10	126 12 0
Cundle, via Savilles, to Cooperbrook			1895	557 18 1	271 9 11
Cowan Creek Road			"	86 1 10	40 0 0
Cooney to West Hillgrove			"	128 18 11	52 9 11
Corinda to Quambone			"	334 17 7	158 17 7
Condong to Durenbar			"	553 13 4	207 19 6
Cudgeon to Norrie's Head			"	119 19 8	75 17 8
Coraki to Buckendoon			"	162 8 2	92 2 4
Cowan Creek to Waterview			"	51 6 0	6 9 4

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com- menced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES—continued.					
Carne's Hill, <i>via</i> Bringelly, to Greendale			1895	£ 782 12 6	£ 190 10 5
Campbelltown to Narellan			1892	749 4 7	51 10 6
Camden Municipality to Werombi			1889	779 19 0	414 0 8
Camden to Oaks			1893	2,427 5 11	368 17 5
Collector to Gundaroo			1895	629 15 3	52 12 0
Collector to Gunning			1890	3,897 2 7	70 5 4
Collector, <i>via</i> Currawang, to Tiranna			1882	5,339 2 10	187 9 10
Collector to Bredalbane			1881	2,797 19 6	184 15 5
Cotta Walla to Roslyn			1892	541 15 10	107 6 11
Crookwell to Bigga			1896	272 8 9	272 8 9
Crookwell to Mount Wayo			1892	3,800 3 9	550 4 5
Crookwell to Laggan and Binda Road			1883	1,071 4 4	60 19 7
Crookwell, <i>via</i> Grabben Gullen, to Gunning			1882	4,289 12 0	396 7 0
Crookwell, <i>via</i> Gullen and Laggan, to Taralga			1874	11,210 6 1	351 14 7
Crookwell, <i>via</i> Laggan to Taralga, to Scabbing Flat			1896	15 8 0	15 8 0
Crookwell to Gunning			1895	390 9 3	300 9 3
Carter's to Pomeroy			1896	32 7 6	32 7 6
Captain's Flat to Norongo			1892	675 2 5	27 10 0
Captain's Flat and Cooma Road to 24-mile post			1893	682 2 1	163 11 5
Cowra Road, near Rosebrook, towards Bredbo			1891	172 3 7	47 15 2
Catheart to Bibbenluka Junction			1888	1,410 2 9	35 3 7
Catheart to New Buildings			1896	300 3 6	300 3 6
Craigie to Delegate			1890	378 11 7	59 19 7
Craigie, <i>via</i> Quinburra, to Border			1896	36 8 0	36 8 0
Cobargo to Walbilliga			1888	3,271 8 11	82 13 11
Candelo to Wyndham			1882	4,329 15 1	123 0 10
Cooma to Green Hills			1887	1,130 3 8	118 17 6
Cooma to Bobundarah			1880	4,731 15 3	311 12 7
Cooma to Jindabyne			1881	10,072 8 10	955 1 3
Cooma, <i>via</i> Rosebrook, to Cowra			1889	877 11 2	120 17 6
Cooma, <i>via</i> Mittagong, to Murrumbidgee			1895	383 16 9	68 14 3
Cooma to Nimitybelle			1892	4,879 14 11	834 16 5
Cooma, <i>via</i> Jindabyne, to Kiandra			1879	18,742 8 9	991 12 8
Cooma, <i>via</i> The Peak, to Dry Plain			1887	2,495 9 2	251 1 0
Cooma to Count-a-guinea, <i>via</i> Big Badger			1879	4,165 17 1	227 5 8
Cooma, <i>via</i> Dandalong, to Kydra			1895	324 9 6	186 15 6
Cooma, <i>via</i> Mawson's Mill, to Murrumbidgee			1896	5 12 0	5 12 0
Coolringdoo to Buckley's Crossing			"	168 8 3	168 8 3
Cootamundra to Stockinbingal Bridge			1885	1,941 15 8	114 11 9
Cootamundra to West Jindalee			1895	227 3 7	40 17 1
Cootamundra to Junee			1892	1,093 14 3	205 6 10
Cootamundra to Binalong	Maintenance, repair, and construction.	Consoli- dated Revenue.	"	1,987 12 2	433 16 8
Cootamundra to Temora			1882	16,692 0 0	288 14 0
Cootamundra, <i>via</i> Kilrush, to Wallendbeen			1892	767 19 10	72 19 7
Cootamundra, <i>via</i> Ironbong, to Bethungra			1891	1,103 10 6	140 1 6
Cootamundra to Coolac			1875	7,240 17 11	175 7 5
Cootamundra to Berthong			1891	550 0 0	74 2 4
Cootamundra, <i>via</i> Gregory's, to Jugiong			1896	29 5 6	29 5 6
Cootamundra to Suburban Areas			"	50 16 10	50 16 10
Coolac to Gobarralong			1887	2,050 5 0	389 3 7
Coolamon to Cowabee			1892	1,521 4 5	360 6 2
Coolamon, <i>via</i> Springwood, to Mimosa			1896	352 19 3	352 19 3
Coolamon to Berry Jerry			"	234 18 9	234 18 9
Carabost to Kyambal			1880	4,703 4 0	78 1 0
Conargo to Old Goree Bridge			1892	676 2 2	183 2 6
Culcairn to Germanton			1882	12,416 6 6	226 11 8
Culcairn to Yerong Creek			1896	110 1 7	110 1 7
Culcairn to Walbundrie			1895	412 4 5	164 6 8
Corowa to Piney Range			1885	4,907 1 7	394 11 7
Corowa to Coreen and Jerilderie Road at Momalong			1892	2,790 1 9	385 9 2
Corowa, <i>via</i> Merton, to Mulwala			1896	158 2 6	158 2 6
Coonong towards Urana			1885	6,822 12 8	1,032 13 2
Carrathool to Hillston			1881	7,957 18 0	464 14 4
Camberwell to Goorangoola Road at Kermod's			1895	100 19 7	15 7 0
Courabyra to Oberne			"	139 7 11	73 4 4
Candelo to Bembooka			"	308 16 10	122 2 0
Condong to Palfrey's			"	138 0 6	31 1 0
Cadgangarry to Upper Brogo			"	108 6 0	41 13 0
Carathool to the Grazier's Meat Export Co's. Works			1896	90 0 0	90 0 0
Camberra Post Office to 7-mile post on Uriara Road			1895	34 11 0	18 3 0
Carragabal, <i>via</i> Bimbi and Thuddungra, to Clifton			"	1,084 7 2	381 10 5
Cawdor to Westbrook			1894	84 0 0	22 1 0
Charleyong to Mayfield Junction			"	160 5 9	49 19 3
Clarendon to Cornwallis			1884	788 8 8	32 0 4
Clarehill's Wharf, <i>via</i> Sackville Post Office, to Page's Ferry			1895	133 15 4	62 2 0
Caloola to Trunkay			1894	163 12 10	27 6 0
Caloola Road to Newbridge			1878	2,299 8 11	87 4 9
Cobborah to Gilgandra			1893	2,622 13 6	629 0 2
Cobborah to Denison Town, at Dunedoo to Stalls			1896	83 11 2	83 11 2
Cobborah to Denison Town			1895	232 17 10	81 8 1
Carcoar to Felltimber Creek			1896	56 8 6	56 8 6
Carcoar to Millthorpe and Cadia Road			1895	508 5 0	199 12 8
Carcoar to Flyer's Creek			1879	2,122 12 5	166 14 3
Carcoar to Hobby's Yards			1894	559 13 1	204 17 8
Carcoar to Hobby's Yards Road to Road Newbridge to Abercrombie			1896	207 0 0	207 0 0
Cudgegong to Wollar			1891	1,903 8 0	329 10 9

RETURN OF EXPENDITURE ON PUBLIC WORKS—*continued.*

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com- menced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES— <i>continued.</i>					
Cudgegong to Wollar, near 13-mile Post to Munghorn Range			1896	£ 58 9 9	£ 58 9 9
Cudgegong to Piambong			1895	134 10 8	59 10 8
Cudgegong to Reedy Creek			1873	2,215 10 0	363 6 7
Cudgegong to Merendee			1896	107 7 6	107 7 6
Cudgegong to Hill End			1873	27,729 4 9	430 14 6
Cudgegong to Rylstone			1883	4,597 12 9	315 14 4
Cudgegong Village to Rylstone			1885	3,463 0 9	215 10 3
Cudgegong to Home Rule			1881	1,692 3 10	76 18 0
Cudgegong to Denison Town			1893	5,719 14 9	1,176 9 8
Camboon, via Pyangle to Dungaree			1896	38 18 2	38 18 2
Cowra to North Logan			1890	322 12 3	71 9 7
Cowra to Koorawatha			1875	6,851 15 7	59 9 0
Cowra, via Darby's Falls to Howell's Creek			1883	2,969 13 1	206 11 0
Cowra, via Binni Creek, to Walli			1886	2,373 2 3	142 19 2
Cowra, via Goolagong, to Forbes			1878	5,359 13 1	553 17 8
Cowra to Canowindra			1880	5,314 3 1	635 6 6
Cowra to Breakfast Creek			1888	2,918 2 3	302 1 4
Capertee to Glen Alice			1896	149 9 2	149 9 2
Cargo to Canowindra			1882	3,483 2 11	223 14 4
Cargo to Cudal			1883	3,247 3 4	159 18 11
Canowindra to Eugowra			1876	6,431 9 9	196 13 9
Canowindra to Goolagong			1890	827 3 8	94 12 11
Cummock to Balderogery			1888	1,524 10 5	120 3 1
Cummock to Eurimbula			1896	28 12 0	28 12 0
Cullenbone to Cobborah			1890	9,770 8 8	1,094 1 10
Cummin's to Four-mile Creek			1896	100 0 0	100 0 0
Cobar to Wilcannia			1895	949 19 6	404 8 4
Cobar to Nyngan			1887	2,075 18 4	70 11 0
Cobar to Hillston			1889	2,458 4 10	289 19 8
Cobar to Louth			1893	403 7 6	120 0 0
Cobar to Bourke			1895	3,563 15 3	123 11 0
Cobar to Balarabon			1896	115 0 0	115 0 0
Curra Creek to Balderogery			1880	9,993 6 3	194 19 0
Curra Creek to Arthurville			"	3,137 17 9	111 0 6
Cudal to Barrigan Hall			1895	249 10 9	59 13 10
Centennial Park Roads			1887	62,876 17 7	1,577 8 0
Comleroy to Sackville Ferry			1895	271 2 9	169 14 3
Cox's to Rydal Road			"	269 5 6	214 7 6
Catholic Chapel, Baulkham Hills, to Seven Hills Road			"	31 12 2	10 10 11
Cullen Bullen to Carson's Siding			"	139 17 6	29 13 6
Castle Hill to Windsor Road			"	45 0 11	25 0 1
Cattai Creek, at Clarke's, to Fisher's			1896	34 0 0	34 0 0
Cattai Creek, at Pearce's, to Great North Road, at Black's			"	50 0 0	50 0 0
Cattai to Rous Hill			"	40 5 0	40 5 0
Carberry's to Chrystal Creek			"	29 0 0	29 0 0
Crabb's Creek Railway Station to the Coast			"	103 0 0	103 0 0
Converting Cylinders into Rollers			"	88 19 0	88 19 0
Cucumbark School to Kramback Road, via Champion Creek to the Cemetery			"	16 0 0	16 0 0
Corinda towards the Barwon			"	98 8 4	98 8 4
Cameron's Falls Ford, Wauchope to Beechwood			"	84 0 0	84 0 0
Coolongolook, near Worth's, to Curreki Gold Fields			"	29 10 0	29 10 0
Chinbible to Davidson's			"	32 11 0	32 11 0
Cooranbong, along west boundary of Cooper's land			"	42 11 8	42 11 8
Crossing over Deep Creek, at Lasscock's			"	23 16 6	23 16 6
Coff's Harbour, Coramba, main Road to upper Bucca Creek Gold Fields			"	286 2 7	286 2 7
Camboon to Pyangle			"	0 16 8	0 16 8
Condobolin to Wyalong			"	23 14 0	23 14 0
Condobolin to Euabalong			"	74 18 3	74 18 3
Cowpasture to Water Channel			"	16 11 0	16 11 0
Camboon to Rylstone Deviation			"	10 8 9	10 8 9
Cross Roads on South boundary of Bega Municipality			"	10 0 0	10 0 0
Coodradigbee to Nottingham			"	25 0 0	25 0 0
Carwoola to the Tinderrils			"	130 9 0	130 9 0
Collector to Tirannia Road to Run of Water to Windellama Road			"	35 16 0	35 16 0
Calabash Public School to Young, Burrowa Road			"	9 7 0	9 7 0
Cobar Road, from Fagan's Road to Government Reserve			"	15 0 0	15 0 0
Calabash Road, from Fagan's Road to Calabash Hill			"	30 0 0	30 0 0
Calabash Hill to Calabash Bay			"	15 0 0	15 0 0
Cattai Creek at Glenerie towards Wigginton's			"	15 0 0	15 0 0
Dungowan, via Port Stevens Spur to Swamp Oak			1893	1,070 1 6	2,611 9 9
Dungowan Creek, south bank of river, to Cadell's Station			1892	971 6 0	30 0 0
Dungog to Thalaba			1896	85 13 6	85 13 6
Dutton's to Marone Creek			1890	1,121 7 3	123 10 11
Deepwater to Torrington			1888	3,167 4 0	348 18 3
Drinan's Gate to Gresford			1896	67 0 0	67 0 0
Darkwater Bridge up left bank Belmore River			1888	1,421 7 3	75 12 6
Darkwater Bridge up right bank Belmore River and Branch Road			1892	830 9 0	151 15 4
Dungog to Weismantles			1883	18,320 6 4	402 7 7
Dungog to Forsterton			1877	2,753 19 10	128 1 8
Dungog to Underbank			1892	7,263 5 8	437 17 8
Danger's Creek, via Glendon Post Office to Drinan's Gate			1896	75 0 0	75 0 0
Dunmore to Clarencetown			1887	8,637 18 4	359 14 7
Dunmore and Clarencetown Road to Seaham Punt			1896	134 3 8	134 3 8
Dunmore to Paterson Bridge			1880	3,328 4 3	152 0 1

Maintenance,
repair, and
construction.

Consoli-
dated
Revenue.

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com- menced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES—continued.					
Dunmore to Pillaway			1896	£ s. d.	£ s. d.
Dunmore and Seaham Road, <i>via</i> Butterwick's, to Dunn's Creek			"	15 0 0	15 0 0
Dumaresq Island Roads			"	40 0 0	40 0 0
Duri, <i>via</i> Colly Blue, to Bomera			1891	483 2 5	59 19 0
Deep Creek to Busby's Flat			1894	2,083 14 0	575 18 10
Duval to Pearson's			1890	1,446 10 11	189 13 7
Doran's up Mullumbimby Creek			1895	33 6 1	22 17 4
Dungay to Skinner's			"	382 12 9	134 9 7
Deegan's to Irving's			"	399 5 7	106 14 7
Dalmorton to Chandler's Creek			1896	42 16 0	42 16 0
Doran's to Reisley's			1895	40 7 0	4 14 0
Darke's Forest to Heathcote Road			"	504 5 11	304 3 0
Dalton to Narrawa			1892	481 15 3	78 7 10
Delegate to the Border, near Bendock			1882	4,475 3 4	288 7 0
Delegate, near Currawang, to Wollondilly			1887	666 16 2	27 1 0
Delegate, <i>via</i> Currawang, to Wollondilly, at Stringy Bark Range			1891	993 17 3	116 9 9
Delegate to the Border, near Kirkanong			1896	23 15 0	23 15 0
Deniliquin to Urana			1895	90 10 0	51 19 9
Deniliquin to Colimo			1874	21,751 4 10	390 6 10
Deniliquin to Wakool Bridge			1895	524 18 1	324 18 1
Deniliquin to Wanganella			1892	1,519 2 8	248 9 0
Deniliquin to Moama			"	1,787 11 9	392 19 0
Deniliquin Municipal Boundary to Wendook			1891	1,183 0 2	197 15 6
Deniliquin, <i>via</i> Aratula, to Tocumwal			1896	19 0 0	19 0 0
Deniliquin to Boomanoomana			1893	942 11 9	149 4 2
Deniliquin, <i>via</i> Moonee Swamp, to Finlay			1895	1,131 8 7	596 14 2
Doughboy Hill to Bungendore			"	525 4 0	124 4 0
Dangalong Road to Tom Grogan's Creek			"	178 10 8	80 17 6
Douglas Park to 13-mile peg on Mount Keora Road			1896	42 9 2	42 9 2
Diamond Swamp to Tarana			"	26 16 1	26 16 1
Dubbo to Obley			1894	412 1 8	148 9 1
Dubbo to Cobborah			1878	6,607 14 5	133 18 0
Dubbo-Gilgandra Road at Brocklehurst to Burrawang			1890	4,067 16 5	463 0 1
Dubbo to Peak Hill			1896	27 6 0	27 6 0
Dubbo-Gilgandra Road at Medway to Collie			1895	800 14 2	506 15 9
Dubbo to Gilgandra			1896	110 0 0	110 0 0
Dubbo-Gilgandra Road at Brocklehurst to Gonoo Dam			1891	6,814 5 10	1,210 3 5
Dairy Creek to Galley Swamp			1896	150 10 6	150 10 6
Defence Road to Pittwater Road			1895	175 9 7	87 10 9
Dog Trap Road to Pheasant's Nest			1888	2,378 2 2	232 8 1
Dripstone to Newrea Bridge			1895	117 12 6	27 12 6
Duramana, <i>via</i> Peel, to Lime Kilns Road			"	401 6 5	305 5 5
Dingo Creek Road to Marchfield			"	189 17 8	51 17 8
Dr. Forbes' Farm to River Bank at Pimlico	Maintenance, repair, and construction.	Consoli- dated Revenue.	1896	40 0 0	40 0 0
Dondingalong to Cox's Bridge			"	92 6 2	92 6 2
Deep Gully Road to Coral Lane			"	137 0 0	137 0 0
Drain through J. Manuel's property, Watson's Bay			"	47 8 0	47 8 0
Deep Creek Crossing, Cootamundra to Temora			"	7 14 1	7 14 1
Dignam's Creek to Bermagui			"	8 0 0	8 0 0
Dural-Windsor Road, towards Smith's			"	50 0 0	50 0 0
Dural-Galston Road, at Public School			"	20 0 0	20 0 0
Eureka to Duraby			"	5 0 0	5 0 0
Eureka to Gay's			1888	1,113 19 8	257 6 8
Emmaville through Rose Valley			1891	215 18 10	27 2 11
Emmaville to Deepwater			1896	30 10 0	30 10 0
Emmaville to Strathbogie			1895	1,339 6 5	409 6 1
East Kempsey to Spencer's Creek and Branch Road			1885	2,392 2 11	157 6 8
East Kempsey to Spencer's Creek at Ball's River (bank protection)			1877	7,063 14 0	644 10 2
East Kempsey to Verge's Swamp			1896	304 14 6	304 14 6
East Kempsey, <i>via</i> Dungay Bridge, to Sherwood			1895	123 16 7	40 0 3
East Kempsey to Coast at Crescent Heads			1880	3,275 16 10	170 8 0
Erina, <i>via</i> Kinumber, to Terrigal			1889	1,842 6 7	252 15 0
Ennis and Gowrie Road to Carney's and Branch to Somerville's Gate			1893	1,264 16 9	383 2 9
Ellenborough Bridge towards Jackey's Bulga			1895	389 3 11	248 19 11
Fast Maitland to Freeman's Waterholes			1896	88 6 0	88 6 0
Ennis Road to Glen Esk Upper Plains			1891	5,713 6 9	600 5 4
Elrington to Araluen			1895	387 9 11	235 12 11
Eurobodalla to Nerrigundah			1870	3,241 1 7	94 0 3
Eden, <i>via</i> Kiah River, to Timbillica			1889	1,237 7 9	57 5 3
Eden to Sturt			1896	30 11 6	30 11 6
Eden-Pambula Road in approach to Pambula River Bridge			1879	8,006 7 2	376 4 8
Eden to Pambula			1896	153 16 9	153 16 9
Eden-Pambula Road, near Pambula Lake, to Day's Selection			1881	8,037 8 9	300 16 0
Eden, Pambula Road, to Mount Gahan			1896	18 4 6	18 4 6
Exeter to Main South Road			1895	15 7 7	6 12 7
Exeter towards Meryla			"	415 16 3	204 5 3
E. McGuire's to Pitt Town Bottoms			1896	49 15 2	49 15 2
E. McGuire's, <i>via</i> Cattai Creek, to Clarke's			1893	252 8 3	79 2 0
Essex Road, East Carlingford			1896	53 8 7	53 8 7
Eastern Plains to Tenterden			1895	58 0 0	18 0 0
Evan's Plains to Perth			"	129 12 11	44 13 9
Eslie's to Four-mile Creek			"	160 10 6	52 7 10
Eatonswill to Copmanhurst			"	119 12 4	79 14 8
Eastwood Road			"	18 12 0	8 16 0
Ellalong to Wallaby Gully			1896	98 0 0	98 0 0
Emigrant Creek at Bishop's to Reserve 1,036			1895	55 4 9	3 0 0
			"	66 4 2	36 5 9

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Commenced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES—continued.					
Eight-mile to Puddle Dock			1895	£ 73 6 6	£ 34 16 0
Elsmore to Kangaroo Camp			"	208 17 6	124 3 10
Eugowra to Bendogundra Railway Platform			"	265 18 4	185 4 4
Eastern Road, Turrumurra			1896	276 9 1	276 9 1
Eastern Road, Gordon to Lane Cove to Cowan Creek at Bobbin Head			"	33 14 6	33 14 6
Eccleston to Upper Aleya River			"	54 0 0	54 0 0
Enfield Road to Reiby's Grant			"	102 5 0	102 5 0
Embankment in approach to Yanko Creek Bridge			"	249 12 9	249 12 9
Embankment in approach to Tocumwal Bridge			"	333 0 0	333 0 0
Fox's to McCormack's			1892	984 4 0	131 12 2
Fidden's Wharf Road			1893	108 3 0	48 2 0
Fernmount to Tysons			1894	164 4 8	33 17 6
Flanagan's Swamp to Upper St. Leonards and Orandumby			1891	582 18 6	175 0 0
Flyer's Creek to Dorney's			1884	3,927 7 8	359 13 10
Flyer's Creek to Forest Reefs			1895	99 18 3	8 11 3
Foot of Burrogorang Mountain up the Wollondilly River			1882	1,807 13 11	270 8 5
Fitzroy Falls, via Belmore Falls, to Ross-gall Road			1890	3,335 16 1	411 5 3
Foxlow, via Carwoola, to Seven-mile post			"	1,597 1 7	311 14 9
Fountaindale Estate Road on			1896	30 0 0	30 0 0
Four-mile Tree to Charlton			1890	823 15 4	113 16 11
Forbes to Gunningbland Junction			1883	5,244 8 0	490 7 0
Forbes to South Condobolin			1882	12,492 12 9	1,097 8 6
Forbes to Condobolin			1879	11,804 5 11	325 12 0
Forbes to Goolagong			1896	314 19 4	314 19 4
Forbes to Grenfell			1895	81 3 10	79 0 0
Forbes, via Parkes and Alectown, to Peak Hill			1878	9,098 11 3	78 7 1
Forbes to Parkes Deviation			1896	12 4 0	12 4 0
Favell's to Byng			1884	1,713 10 1	171 18 0
French's Forest to Pittwater Road, Greendale and D.Y.			1890	1,245 7 2	159 15 9
Fleck's to the Quarry			1895	124 17 8	47 17 6
Fall's Creek to Jervis Bay			1896	22 2 0	22 2 0
Forster's Gate to Barber's Creek			"	8 2 10	8 2 10
Forster's Gate to Well's Creek			"	18 9 10	18 9 10
Flemming's Hill to Grono's Farm			"	23 6 8	23 6 8
Flagg's Road into Merriwa			"	25 6 8	25 6 8
Footpath in Approach to Bullock Island Railway Bridge			"	8 6 6	8 6 6
Floodgates, Saltwater Creek, Jones' Island			"	27 19 3	27 19 3
Fernbank Creek to Glen Ewan			"	24 17 1	24 17 1
Frenchman's Lane, Deviation at			"	23 15 4	23 15 4
Foot of Gorrick's Hill to Wilberforce			"	16 1 0	16 1 0
Forest Hill towards Gumly Gumly			"	60 5 6	60 5 6
Frogmore to Reed's Flat, via Short's and Downs' Selections			"	17 1 0	17 1 0
Granuaile to Bangalow	Maintenance, repair, and construction.	Consolidated Revenue.	1889	2,620 0 4	54 5 3
Gundurimbah to Marshall's			1892	597 19 7	129 2 8
Goonellabah to Rous			1895	296 14 9	271 8 4
Grafton, via Glen Innes, to Inverell			1866	288,191 12 6	5,924 17 10
Grafton, via Southgate to Broadwater Road, to Gears			1896	38 10 2	38 10 2
Grafton, via Southgate, to Broadwater			1894	3,079 13 7	953 9 11
Grafton, via Southgate, to Broadwater, towards High Ground and Flood Reserve			1896	11 0 0	11 0 0
Grafton to Flying Horse			1890	10,088 16 5	525 14 3
Grafton and Inverell Road to Glen Elgin Mines			1895	46 5 0	13 17 0
Grebert's to Solferino			1886	6,287 15 2	429 18 10
Grafton, Corinda Road, at Genugil, to the Umarra-Corinda Road ...			1896	56 0 0	56 0 0
Glynn's to Nymboida			1890	401 3 3	33 5 6
Glen Innes to Red Range and Bear Hill			1895	272 15 4	153 17 5
Glen Innes, via Wellingrove, to King's Plains			1875	9,577 4 6	218 11 4
Glen Innes to Shannon Vale			1891	561 10 3	79 9 9
Glen Innes to Mount Mitchell			1888	1,577 7 7	83 18 0
Glen Innes, Red Range Road, at Green House, towards Kookabookra			1896	21 8 3	21 8 3
Glen Innes to Emmaville			1881	8,212 13 2	230 19 5
Glencoe Station to Mount Mitchell			1890	1,325 4 1	48 15 0
Guyra to Glencoe			1895	811 7 7	323 14 0
Guyra to Sandy Creek			1890	493 5 7	10 6 0
Guyra to Kangaroo Camp			1893	3,078 14 11	456 17 10
Guyra to Kangaroo Camp Road to Tapps			1896	9 9 0	9 9 0
Guyra to Oban and Kookabookra			1889	2,553 3 6	113 2 4
Gundy to Timor			1896	55 13 0	55 13 0
Great North Road up Dry Creek			"	30 11 0	30 11 0
Great North Road to Tubbamurra			"	28 6 0	28 6 0
Green Hill Ferry to East Kempsey and Sherwood			1895	327 4 3	268 6 9
Gostwycke to New Park			1882	7,501 17 11	275 0 10
Gostwycke to Vogel's Selections			1896	27 0 0	27 0 0
Gosford to the Blood Tree			1890	3,369 9 2	204 13 2
Glennie's, via Chilcott's Flat, to Camberwell and Goorangoola Road ...			1891	186 13 11	34 0 0
Gunnedah to Malally			1888	7,270 1 4	404 13 3
Gunnedah to Wandobah			1889	300 9 5	38 9 0
Gunnedah to Carroll, north bank Namoi			1893	277 5 8	71 1 0
Gunnedah to Burburgate			1896	7 19 0	7 19 0
Gunnedah to Somerton			1890	1,971 18 1	230 1 3
Gunnedah to Boggabri			1894	325 14 6	75 18 7
Gloucester to Copeland			1880	5,540 10 3	487 12 4
Gloucester to Cobark			1885	3,335 2 9	298 19 0
Green's Lane to Hartford Gully			1891	248 3 10	26 18 6
Geraghty's to Bryant's			"	704 8 10	76 4 8
Great North Road, near Uralla, to Big Ridge			1896	22 14 11	22 14 11

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com- menced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES—continued.					
Goorangoola Road to Carrow Brook			1895	£ s. d. 278 15 7	£ s. d. 54 14 0
Goorangoola, Bowman's Creek Road, at Rifter's, &c., to Rosis Selection			1896	12 10 0	12 10 0
Goorangoola Road to Bowman's Creek			1895	100 0 0	80 0 0
Goondiwindi towards Moree			1896	73 8 0	73 8 0
Gresford to Eccleston			"	227 0 0	227 0 0
Gresford to Lostock			"	280 0 0	280 0 0
Gresford and Eccleston Road, via Parkes Creek, to Dungog			"	50 0 0	50 0 0
Gara to Kunopia			1895	79 3 6	24 2 9
Gosford to Cooranbong			1892	3,965 13 8	864 9 6
Gosford and Cooranbong Road to Tuggerah Lakes (Cobb's Road)			1895	186 3 11	45 19 3
Gosford and Cooranbong Road to Swansea			"	704 14 9	294 17 11
Gosford to Madens Brush			1895	36 0 0	36 0 0
Gosford to the Blood Tree Road to Somersby Waterfalls			1895	87 15 0	57 15 0
Gosford and Terrigal, Haven Road to Davis Town			1896	96 18 9	96 18 9
Gosford and Cooranbong Road, via Jilliby and Mandalong, to Gosford and Cooranbong Road			1895	928 16 3	561 4 5
Gosford to Wallabadah			1896	10 1 0	10 1 0
Gosford to Tuggerah Beach			1895	833 10 8	329 17 4
Gosford and Blood Tree Road to Narara Station			1896	78 6 11	78 6 11
Gosford and Cooranbong Road to Carrington Apiary			"	123 19 6	123 19 6
Gordonville to McFadden's			1895	405 9 4	145 2 9
Green Ridge to Knight's Farm			"	169 0 6	122 10 6
Goulburn to Cooma			1874	129,860 16 10	1,243 9 6
Goulburn to Pomeroy			1886	5,399 3 3	202 17 0
Goulburn to Roslyn			1878	8,712 11 10	269 3 8
Goulburn to Mount Wayo			1892	1,755 11 3	175 0 0
Goulburn Municipal Roads			1896	75 0 0	75 0 0
Goulburn to Mummel Bridge			1892	1,525 13 9	222 12 8
Goulburn to Bungonia			1874	7,472 10 2	169 16 9
Goulburn to Taralga			1888	9,598 18 10	350 0 0
Goulburn to Windellima			1876	9,751 2 0	242 0 8
Goulburn to Windellima Road towards Bungonia			1896	35 10 0	35 10 0
Goulburn, Cooma Road, near 23 Mile post to Currawang			"	111 18 4	111 18 4
Gunning to Berrybangle			1891	652 19 9	107 1 2
Gunning to Gundaroo			1893	1,266 7 5	304 14 2
Gunning and Dalton Road to Burrowa			1892	1,654 6 6	599 19 4
Gunning, via Dalton, to Burrowa, towards Douglas			1896	19 0 10	19 0 10
Gininderra to Gundaroo			1892	250 10 10	44 9 5
Gininderra to Bungendore			1890	1,473 16 5	120 5 2
Galong, via Kalangan, towards Marengo			1892	915 16 2	211 0 0
Galong to Burrowa			1890	1,173 18 3	94 16 6
Gundagai to Bongongolong	Maintenance, repair, and construction.	Consoli- dated Revenue.	1883	3,166 11 2	98 4 2
Gundagai to Wantabadgery			1892	891 8 0	140 0 0
Gilmore Creek to Reilley's Crossing			1872	3,910 10 7	104 7 3
Glenroy to Mundaroo			1890	836 3 5	20 0 0
Glenroy to Coppabella			1896	57 7 9	57 7 9
Germanton to Jingellie			1886	5,022 5 6	160 7 0
Germanton to Cookardina			1883	2,157 4 6	66 14 0
Gerogery to Howlong			1881	12,108 10 0	304 17 4
Gerogery, via Jindera, to Bungowannah			1876	6,450 15 7	161 13 5
Glenquarry to Yarrunga			1896	258 16 6	258 16 6
Gerogery Station to Walla Walla			1876	6,975 16 6	115 6 0
Germanton to Bowler's Gap			1895	362 12 0	53 11 0
Grattai to Sally's Flat			1888	4,013 4 1	399 3 10
Grenfell to Forbes			1887	3,478 10 1	92 4 11
Grenfell, via Weddin Gap, to Bimbi			1890	1,015 7 10	75 0 0
Grenfell to Goolagong			1885	3,544 16 1	122 12 5
Grenfell to Quondong			1890	567 6 1	11 4 6
Grenfell, via Bimbi, to William's Crossing			1882	5,343 14 8	115 10 0
Guntawang, via Wellington, to Goolma			1878	12,566 5 2	231 14 7
George's Plains to Caloola			1894	502 19 5	103 6 10
Goodooga to Brewarrina			1895	416 14 7	116 7 0
Glasson's Woolshed to Moorilda			"	143 1 6	71 11 0
Gulgong to Martin's Crossing			1896	16 15 10	16 15 10
Gulgong to Jackson's Crossing			"	37 8 9	37 8 9
Gladesville, via Gordon to Pittwater			1890	1,740 5 4	456 10 0
Granville to Main South Road (Woodville Road)			1889	1,817 14 4	73 7 0
Girilambone to Cannonbar			1896	48 1 1	48 1 1
Galston Road to Berowra Creek			"	63 0 0	63 0 0
Grong Grong to Devlin's Siding			1895	98 16 10	39 19 6
Grong Grong to Warri			"	525 15 7	146 18 11
Grong Grong to Narrandera			"	101 13 5	43 13 5
Graman to Ottery's Creek			"	99 15 0	7 0 0
Galston to Dural			1896	43 10 0	43 10 0
Galston to Fagan's			"	75 0 0	75 0 0
German's Hill to Boro			"	139 19 2	139 19 2
German Hill to Kite's Swamp			"	120 1 0	120 1 0
Gobondry to Bogan Gate Railway Platform			"	116 15 0	186 15 0
Great West Road to Wentworth Falls Reserve			"	17 15 0	17 15 0
Gladstone along Boundary Race Course			"	18 0 0	18 0 0
Gilgandra via Biddin towards Tinderbrine			"	49 7 0	49 7 0
Gori Gate to Duri Platform			"	23 10 0	23 10 0
Goondiwindi Road towards Kunopia			"	39 8 1	39 8 1
Glen Ora, down the River			"	141 19 8	141 19 8
Green Valley to Kentucky Platform Crossing Main North Road			"	23 18 0	23 18 0
Green Hills to East Kempsey to Sherwood Road at Euroka			"	41 3 8	41 3 8

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repairs.	Fund from which the Expense is defrayed.	When com- menced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES—continued.					
Glenon Milk Factory to Lower Mitchell's Flat			1896	£ s. d. 49 12 0	£ s. d. 49 12 0
Ginkin to Edith			"	14 8 0	14 8 0
Great West Road to Silver Water Wharf			"	25 0 0	25 0 0
Grabine to Woolbrook			"	139 10 0	139 10 0
Glenbrook Station to Main West Road			"	25 5 3	25 5 3
Grogan, via Dinga Dingi, to Stockinbingal			"	32 14 2	32 14 2
Gibb's to Coggin's (Old Pagar Road)			"	50 0 0	50 0 0
Glen Murray Road			"	256 11 6	256 11 6
Gallop's Creek to Bowning and Yass			"	17 12 0	17 12 0
Green's Gunyah towards Bond's			"	25 15 0	25 15 0
Gilmore Road, from Fagan's Road, to Munroe's			"	15 0 0	15 0 0
Glenhaven Road, from Great North Road, towards Kellyville			"	15 0 0	15 0 0
Galston to Middle Duval			"	20 0 0	20 0 0
Galston, Fagan's Road, to Thomas' Selections			1895	129 0 0	5 0 0
Howlong to Tocumwal			1896	78 8 1	78 8 1
Howlong to Walbundry			1892	4,728 16 0	59 17 6
Howlong to Goombargona			1896	98 9 3	98 9 3
Hay to Booligal			1883	12,298 4 9	450 8 4
Hay to Gunbar			1879	7,072 8 0	143 6 10
Hay to Darlington Point			1896	75 0 0	75 0 0
Hay to Wanganella			1881	863 9 1	127 4 1
Holt's Flat to Tantawanglo			1892	140 19 4	109 19 4
Hartley to Jenolan			1890	8,352 6 5	788 2 8
Hill End to Duramana			1887	1,313 16 9	139 12 11
Halfway House, via Abattoirs, to "White Bay Hotel"			1885	3,935 4 4	292 1 4
Hornsby to Galston			1893	7,214 2 7	615 9 6
Head of Popran Creek to Wharf, Hawkesbury River			1896	32 4 0	32 4 0
Hill Top to Main South Road			"	69 0 9	69 0 9
Haydonton Railway Station to Dwyer's			"	12 0 0	12 0 0
Hewitt's Hill to Petersen's			"	93 16 6	93 16 6
Hobby's Yards to Long Swamp			"	10 0 0	10 0 0
Henty to Pleasant Hills			"	53 1 5	53 1 5
Hairfield Road, from Calabash Ridge, to Armitage			"	10 0 0	10 0 0
Harwood to Chatsworth			1883	1,525 16 10	43 1 2
Harwood, via Serpentine, to Chatsworth			1890	1,207 15 9	142 7 9
Holey Flat to Stewart's River			1889	1,323 9 1	272 14 3
Harper's Hill to Allandale Railway Station			1879	777 9 11	64 18 11
Hillgrove to Perrett's			1895	1,202 4 6	621 16 1
Hayden's to Watson's (West Nimbin Road)			1891	1,710 1 9	188 2 4
Hainsville, via Mullimbimbi, to Byron Bay			1894	2,373 14 7	686 15 11
Hartigan's, up North Arm			1895	461 13 1	203 15 4
Hexham to Williamstown			"	512 0 1	239 8 7
Hinton to Mount Kanwarly			1887	1,712 13 0	115 2 8
Hexham, via Raymond Terrace, to Limeburner's Creek			1884	6,716 5 0	570 10 7
Henty Station to Munyabla			1892	911 11 5	111 19 3
Humula to Kyamba			1896	50 0 0	50 0 0
Hay to Balraval			1887	10,526 10 10	126 2 10
Hillston to Roto			1895	318 5 9	138 2 6
Hillston to Cudgellico			"	462 16 2	147 7 6
Helensborough West to Heathcote, Bulli Pass Road			"	416 5 3	390 19 1
Heathcote to top of Bulli Pass			1890	1,443 7 0	120 16 5
Hoskingtown to Harold's Cross			"	520 16 8	58 4 3
Humula, via Umbango, to Tarcutta			1892	593 11 2	99 18 6
Inverell to Gum Flat			1889	2,015 11 2	132 11 8
Inverell, via Elsmore to, Glen Innes Road			1884	7,008 4 8	290 10 8
Inverell to Bundarra			1892	891 9 0	233 12 10
Inverell, via Tingha, to Kangaroo Camp			1893	1,785 2 0	312 15 2
Inverell, via Middle Creek, to Kangaroo Camp			1896	24 17 0	24 17 0
Inverell, to Dinton Vale			1885	1,769 5 8	148 14 10
Inverell to King's Plains			"	3,829 6 8	369 7 3
Inverell to Wallangara			1878	19,463 17 6	1,070 10 2
Inverell to Warialda			1877	23,680 6 1	1,240 10 10
Inverell to Strathbogie			1894	2,353 14 9	501 19 7
Inverell-Texas			1878	13,985 15 8	579 16 7
Inverell-Bingera Road to Bobby Whitlow Creek			1896	49 18 6	49 18 6
Inverell Road, at 23-mile post, to Yetman Road, at 10-mile post,....			"	45 12 0	45 12 0
Irishtown to Wollum Platform			1893	145 8 6	38 19 6
Ironbarks to Boolcarrol			1888	2,829 16 0	302 15 0
Illawarra Road from Lugarno Ferry to Little Forest			1896	20 0 0	20 0 0
Illaboo Railway Station to Eurongilly			1895	98 19 3	48 19 3
Illaroo Road to Brown Mountain			1896	73 18 6	73 18 6
Junee to Cooba Creek Bridge			1891	662 10 4	117 3 7
Jesswoldan to Uralba			1891	595 16 0	81 19 5
Jericho, over Big Swamp			1890	1,040 17 4	220 0 0
John's River Wharf to Upper Stewart's River			"	1,298 9 4	198 10 6
Jerry's Plains to Denman			1884	2,260 2 9	88 3 4
Jerry's Plains to Oakhollow			1896	47 12 9	47 12 9
Johnson's Bridge to Moonbi Station			1892	339 7 6	50 0 0
Jilliby Jilliby to Little Jilliby			1895	414 15 6	86 18 10
Jugiong to Murrumburrah			1887	2,736 2 8	107 19 3
Jindabyne to Ingebyra			1892	387 11 9	106 3 10
Jingellie to Kancoban			"	1,937 16 1	244 5 9
Jerilderie, via Yanko, to Goolgumbula			1891	1,019 6 10	106 8 0
Jerilderie to Tocumwal			1884	4,031 13 1	217 5 3
Jerilderie to Berrigan			1890	3,020 1 8	91 4 10
Jerilderie to Clear Hills			1894	631 2 3	66 15 0

Maintenance,
repairs, and
construction.

Consoli-
dated
Revenue.

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com- menced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES—continued.					
Jerilderie to Coreen			1895	£ s. d. 1,285 11 1	£ s. d. 237 1 6
Jindera to Walla Walla			1888	1,706 11 6	105 9 6
Jindabyne to Wollondilly			1895	58 1 3	26 12 0
Jindabyne to Kosciusko (Exploration)			1896	250 8 0	250 8 0
Jones' Bridge to West Blowering			1895	296 15 7	143 12 4
Jerry's Plains to Doyle's Creek			1896	32 12 8	32 12 8
Junction, Barnett and Little Manning Rivers, to Nowendoc			"	93 0 0	93 0 0
Jacob's Hill Deviation			"	24 13 4	24 13 4
Kynumboon to Nobby's Creek			1889	3,297 6 11	232 14 2
Kelly's, via Sharpe's, to Moonee			1890	7,907 11 1	1,591 10 11
Kempsey to foot of Jeogla Mountain			1894	6,847 7 5	1,808 0 1
Kincumber to Lloyd's Wharf			"	114 10 9	82 8 0
Kincumber to Little Beach			1893	236 15 7	67 0 0
Krambach to Kew (North Coast Road)			"	7,412 14 5	1,341 15 0
Krambach to Tuncurry			1895	1,285 16 5	700 0 0
Koree Island Roads			1890	239 16 11	34 9 8
Kayuga, via Baxter's, to Aberdeen			1894	374 14 8	139 19 2
Kew, Rolland's Plains Road, to Cedar Creek			1896	20 15 0	20 15 0
Kew to Rolland's Plains			1895	2,513 14 3	1,348 4 7
Kew, Rolland's Plains Road, near 37-mile Post, to Heron's Creek Wharf			1896	99 6 3	99 6 3
Katoomba to Jenolan Caves			1895	67 5 9	27 13 0
Kangaroo Valley, via Brogher's Creek, to Kangaroo Mountain			1882	2,148 8 2	99 15 0
Kangaroo Flat Road, at Junction to Woodton			1896	45 10 0	45 10 0
Kippielaw to Bialla			1888	2,089 0 6	193 1 5
Kippielaw, via Parkesbourne, to Bredalbane			1887	676 17 4	30 6 0
Kitty's Creek to Dog Trap Ford			1888	1,219 4 1	137 2 4
Kiandra Road to Yarrangobilly Caves			1896	116 3 9	116 3 9
Kialla Post Office to Middle Creek			1895	121 17 8	22 13 1
Kialla to Pejar			1894	110 8 0	26 1 0
Kanoona to Candelo			1895	241 9 5	142 10 0
Kameruka to Bembooka			"	172 9 3	17 17 0
Kirkconnell to Sunny Corner			1890	1,057 5 2	155 19 2
Kelso and Palmer's Oakley, to River Turon			1887	11,240 1 1	381 13 0
Kelso to O'Connell			1896	9,878 7 0	177 4 9
Kelso to White Rock			1896	45 8 0	45 8 0
Kelso to Kelloshiel			1895	131 0 5	18 15 4
Kelso to Monkey Hill			"	2,758 0 10	979 16 9
Kelloshiel to Gowan			1878	7,773 15 6	281 2 11
Kayuga Road to Castle Rock			1896	34 3 8	34 3 8
Kangaloon to Waratah Factory			"	46 14 6	46 14 6
Kenthurst Post Office to Porter's			"	25 0 0	25 0 0
Katoomba to the Caves			"	54 5 0	54 5 0
Kelman's Gate to Kirkton			"	100 10 8	100 10 8
Keera Crossing			"	29 18 8	29 18 8
Koorawatha towards Grenfell			"	20 9 6	20 9 6
Knight's Road from Beran's Road			"	10 0 0	10 0 0
Kenthurst, Windsor Road near McClymont's, towards Clarke's			"	25 0 0	25 0 0
Kenthurst, via Cusbert's, to Annan Grove			"	15 0 0	15 0 0
Lismore to Gundarimba			1891	493 8 5	55 14 8
Lismore to Reisley			1896	538 18 10	538 18 10
Lismore to Blue Knob (Nimbin Road)			1883	21,252 1 7	788 10 0
Lismore towards Nightcap			1895	831 2 10	415 7 10
Lismore to Tucki			1893	10,760 4 4	233 2 0
Lismore, Nightcap Road, to Dunoon and Arthur's			1896	38 2 4	38 2 4
Lismore to Beardow's			1894	580 11 9	164 16 9
Little Plain to Reedy Creek			1894	268 15 5	91 17 0
Lawrence to Myall Creek			1864	138,696 5 9	698 17 4
Lycester Creek Bridge to Campbell's			1887	3,106 9 10	397 16 6
Levenstrath, via Kangaroo Creek, to Green's			1890	1,069 18 7	135 1 6
Laris to Toohey's Mill			1886	3,203 3 0	183 0 3
Long Reach to Clybucca			1890	440 16 2	34 10 0
Long Reach to Rainbow Reach			1891	304 13 3	34 12 6
Laurieton to Upper Camden Haven			1892	1,768 2 11	462 12 9
Lambton to Charlestown			1883	2,915 1 10	54 12 6
Lambton and Charlestown Road to Cardiff Road			1894	176 3 5	71 6 4
Laguna to top Wattagan Mountain			1895	470 17 9	170 19 3
Lochinvar to Railway Station			1885	523 13 6	32 10 0
Limeburners' Creek to Krambach			1894	6,882 17 5	1,776 11 8
Little Plain to Bingera			"	2,544 16 3	662 13 2
Largs to Tocal			1896	120 0 0	120 0 0
Lochinvar, via Luskintyre, to Dalwood			1894	340 19 0	139 2 0
Lochinvar to South of Boyces			1896	39 0 0	30 0 0
Limestone Hill to Newell's Crossing			1895	427 10 10	177 5 10
Lostock to Carraboler			1896	100 0 0	100 0 0
Little Bumble, via Millie to Meroe			1890	3,393 8 11	232 3 4
Long's Corner to Canowindra			1895	70 17 3	13 6 8
Liverpool, via Holdsworth's, to Eckersley's			1894	211 16 4	91 16 4
Liverpool via Penrith, to Bringelly Road			1896	61 2 8	61 2 8
Leighwood, via Golspie, to Stone Quarry			1887	834 7 4	82 6 4
Leighwood to Bolong River			1896	11 0 0	11 0 0
Laggan to Binda			1875	3,086 7 4	81 14 5
Laggan Road, via Strathaird, to Goulburn Road			1895	77 17 9	27 12 0
Laggan to Golspie			1892	462 8 8	76 3 10
Lower Tarcutta to Alfred Town			"	1,755 16 9	255 11 2
Lochiel to Back Creek			1893	158 4 10	50 0 0
Larbert, via Reedy Creek, to Braidwood and Boro Road, to Hallett's ..			"	155 16 3	19 18 0

Maintenance, Consoli-
repair, and dated
construction. Revenue.

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Commenced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES—continued.					
Little Forest to Canyonleigh			1894	£ s. d. 2,155 13 8	£ s. d. 890 8 0
Loftus Junction to Heathcote			1896	52 10 9	52 10 9
Lithgow Municipality to Middle Hartley			"	146 9 2	146 9 2
Lidsdale to Wolgan			1893	480 8 9	69 11 0
Little Hartley to Hartley Vale Platform			1885	3,250 6 5	181 9 0
Lowther to Gambenang			1890	564 1 10	36 15 7
Lyndhurst, via Abercrombie, to Bigga			1879	8,930 13 0	385 5 2
Leeholme to Tarana and O'Connell			1872	4,045 4 3	119 8 10
Lucknow to Huntley			1895	210 2 7	106 10 0
Little Hartley to Lowther			"	198 9 7	121 13 7
Lucknow to Worboy's Junction			1896	469 10 8	469 10 8
Lane Cove to Cowan Creek, at Bobbin Head			1884	1,166 10 5	90 2 4
Lane Cove Road, Turramurra, to Bobbin Head			1896	25 0 0	25 0 0
Lane Cove Road to Gordon Estate (Peat's Road)			"	42 0 0	42 0 0
La Perouse to Little Bay (Sanatorium Road)			1884	1,090 4 6	94 2 11
Lugano to Como			1895	428 17 3	1 0 0
Loop Road, Glen Dural, to Brownlow Hill			1896	17 17 0	17 17 0
Ludkie's, via Pee Dee, to Main Arundal Road			"	158 10 9	158 10 9
Lavadia to Ulmarra			"	40 0 0	40 0 0
Lower Ash Island Punt to Maitland Road			"	21 5 0	21 5 0
Lithgow to the Hermitage (Compensation)			"	89 1 9	89 1 9
Lakesland to Cedar Creek			"	41 5 0	41 5 0
Murwillumbah to Blue Knob			1894	2,776 8 11	732 2 1
Murwillumbah, via Risley's, to 'Possum Shoot			"	4,580 18 5	1,113 18 1
Murwillumbah to Cudgen Wharf			1892	2,167 10 0	435 16 11
Murwillumbah to Queensland Border			1891	2,628 12 5	307 10 8
Murwillumbah to Brown's Farm			1896	32 2 1	32 2 1
Murwillumbah, via Tumbulgum, to Terranora			1880	3,680 1 11	309 4 10
Murwillumbah, 'Possum Shoot Road, to Caden's			1896	113 11 0	113 11 0
Minmi to Thornton			1878	4,864 6 5	204 11 11
Mullumbimby, up Main Arm, Brunswick			1890	1,414 8 10	82 3 6
Maclean to Palmer's Channel			"	936 16 4	91 6 0
M'Lean's to Model Farm			1896	74 6 0	74 6 0
Merriwa to Cassilis			1891	5,902 15 3	422 16 8
Merriwa to Bunnan			1896	37 6 0	37 6 0
Merriwa to Ringwood			1895	27 19 9	10 8 3
Melville to Stockyard Creek			1889	553 11 9	16 14 0
Maybole to Ben Lomond Railway Station			1882	273 11 0	24 14 8
Moree, via Goonal, to Mogil Mogil			1887	5,963 1 10	198 13 8
Moree Road, via Reeves, to Pallal Road, at Bangheet			1894	191 0 6	43 4 0
Moree to Terry Hie Hie			1892	1,351 10 8	107 8 8
Moree to Mungundi	Maintenance, repair, and construction.	Consolidated Revenue.	1894	2,762 19 7	851 3 8
Moree to Bogamildi			1895	765 8 3	252 6 0
Moree towards Bingera and Ezzie's			"	1,234 9 2	529 10 8
Moonee to Congarini (Coast Road)			1894	5,389 0 10	1,432 19 0
Marx Hill to South Arm			1896	147 14 3	147 14 3
Mosquito Island Road			1894	163 14 2	33 15 0
Mundooran to Tundabrine Creek			1895	995 17 4	395 4 6
Myers' C.P. to Never Never Plains			1884	2,187 3 0	188 10 1
Marlee Road to Minns' and Gillogley's			1892	88 10 3	10 0 0
Moyocum to Tyagarah			"	713 6 8	155 11 4
Mitchell's Island Roads			1887	2,061 5 10	179 16 9
Morrisett to mouth of Dora Creek			1896	44 14 6	44 14 6
Maitland and Paterson Road to Dalwood			1887	2,604 9 0	432 7 5
Maitland Road to Earl's C.P.			1894	196 5 8	123 8 0
Maitland and Dagworth Road along Wallis Creek			1887	806 6 7	68 13 5
Maitland Road to Broomfield Hill			1896	67 0 0	67 0 0
Maitland and Dagworth Road, via Stanhope, to Elderslie			"	102 10 4	102 10 4
Morpeth and Largs Roads, &c., to M'Clymont's Swamp			1895	90 0 0	40 0 0
Morpeth to Four-mile Creek			"	150 0 0	100 0 0
Morpeth Road, through Phoenix Park, to Largs			1896	54 0 0	54 0 0
Morpeth, via Hinton, to Dunmore and Clarencetown			1892	812 5 9	152 6 4
Morpeth to Largs			1896	30 0 0	30 0 0
Muswellbrook Bridge to Sandy Hollow			1888	4,922 7 11	269 16 11
Muswellbrook to Merriwa			1893	5,216 18 7	1,036 19 1
Muscle Creek Road			1896	76 15 8	76 15 8
Moonan Brook to Glenrock			1895	209 6 0	139 6 0
Malally to Denison Town			1892	5,417 3 11	789 19 4
Mail Station to Llangothlin Railway Station			1890	404 14 9	14 19 9
McIntosh's to Nymboida			"	2,276 4 11	313 3 2
McIntyre's Flat to Puddledock			1880	773 17 4	55 17 10
Macksville to Upper Warrell Creek			1886	574 7 10	39 9 3
Macksville to Macleay Heads			1885	1,267 8 11	76 5 6
Meehan's Crossing, via Limestone, to Maloney's			1895	322 11 4	147 5 6
Manilla to Somerton			1891	364 5 0	49 0 0
Manilla to Crow Mountain			1896	24 17 0	24 17 0
Manilla to Hall's Creek			"	15 0 0	15 0 0
McIntosh's to Levenstrath			1895	74 3 9	52 15 3
Mobbs' Hill to Rogan's Hill			"	647 8 10	454 18 4
McDonald's River up Webb's Creek			1893	317 4 6	116 1 4
McDonald's River up Gorrick's Run			1896	25 0 0	25 0 0
Muswellbrook, via Dartbrook, to Seone			1895	261 6 8	129 18 10
Moonan Brook to Glen Rock Deviation, at Campbell's Pinch			"	159 19 7	109 19 7
Moylan's to the Beach			"	101 4 8	9 2 0
Murray's Run to Bumble Hill			1896	153 11 0	153 11 0

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com- menced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES—continued.				£ s. d.	£ s. d.
Main South Coast Road, Jamberoo to Albion Park, Deviation at Turpentine Hill			1896	560 13 6	560 13 6
Main South Coast Road, Jamberoo to Albion Park, Deviation at Gray's Hill			"	169 15 0	169 15 0
Menangle to Great Southern Road			1895	115 14 11	77 13 11
Main South Road to Cobbity			1896	69 18 6	69 18 6
Main South Road to Bullio			1890	1,624 3 3	199 9 0
Main South Road to Jellore			1896	15 0 0	15 0 0
Main South Road to Picton Lakes			1894	268 19 1	168 7 0
Main South Coast Road at Bateman's Bay to Runnymede			1896	22 13 0	22 13 0
Main South Coast Road			1879	132,106 19 5	7,388 2 5
Main South Coast Road, near Campbelltown, to Wedderburn			1896	148 10 6	148 10 6
Mittagong to Argyle Road			1879	1,810 10 2	29 17 0
Mittagong to Glenquarry			1896	118 6 0	118 6 0
Moss Vale towards Jamberoo			1890	6,276 4 1	597 15 2
Moss Vale towards Kiama, Jamberoo Mountain Road			1896	113 0 0	113 0 0
Moss Vale to Meryla			"	337 1 8	337 1 8
Moss Vale to Barrengarry			1890	7,783 2 10	634 2 4
Moss Vale, Barrengarry Road to Red Hill			1896	15 0 0	15 0 0
Moss Vale, via Berrima, to Mandemarr			1890	1,901 13 7	387 4 4
Menangle to Stoney Creek			1892	459 2 1	63 10 3
Mount Wayo, via Tuena, to The Abercrombie			1881	32,913 18 11	566 8 8
Mummel Bridge, via Wheeo, to Narrawa			1892	2,545 12 5	311 4 2
Mulwalla to Saverlake			1895	230 16 0	42 19 0
Mulwalla to Berrigan, at Tanner's Lane			1896	198 0 0	198 0 0
Marulan Taralga Road, at Bannaby, to Bullio			"	14 18 0	14 18 0
Marulan, via Long Reach, to Bannaby and Taralga			1892	2,562 1 1	360 18 10
Murrumburrah, via Currawang, to Kingsvale			"	364 1 1	56 8 7
Monga to Major's Creek, Elrlington			1871	6,681 3 0	87 10 10
Major's Creek to Snowball			1880	5,550 14 1	324 15 1
Mogo to Tomakin			1887	841 18 11	26 17 11
Mogo to Ryan's Creek Bridge			1896	84 7 0	84 7 0
Mortlock's to Cowra Reefs			"	81 19 0	81 19 0
Merimbula to Jellat Jellat			1874	3,028 17 1	60 11 6
Moruya to Araluen			1865	32,432 6 5	528 6 4
Mathoura to Bunaloo			1888	1,657 15 3	43 0 0
Moruya to Womban Road			1896	22 5 3	22 5 3
Moulamein to Yanga			1892	1,092 10 1	79 19 0
Moruya to Broulee			1896	70 17 0	70 17 0
Moama to Moulamein			1875	14,218 0 0	337 17 4
Moama to Thyra			1892	814 0 5	214 19 0
Murrumbateman to Gininderra			1893	656 8 8	230 10 2
Mittagang to Billyrumbuck	Maintenance, repairs, and construction.	Consoli- dated Revenue.	1891	145 13 2	36 9 6
Monteagle to Monteagle Platform			1895	219 3 9	40 0 0
Main South Road to Burrowa			"	506 14 4	229 15 9
Main West Road to Chatsworth, via Mt. Capicure (Wallgrove Road)			"	145 3 5	40 19 0
Main West Road to Lapstone Range			"	111 6 6	40 11 8
Main West Road to Cross Roads, Cabramatta			1893	505 5 10	77 12 11
Main West Road, Glebe, to Rookwood			1896	34 14 7	34 14 7
Main West Road at Fox under Hill to Seven Hill's Road			1895	90 0 0	50 0 0
Main West Road to Blacktown Road			1896	75 0 0	75 0 0
Main West Road at Castle Hill to Government Reserve			1895	102 19 5	16 0 0
Main West Road, Diamond Swamp to Road Meadow Flat, to Tarana			"	40 19 5	31 4 1
Main West Road, Katoomba			1896	139 5 10	139 5 10
Mount Victoria to Bell's Platform			1885	2,524 12 4	64 1 0
Mutton's Falls to O'Connell			1890	611 9 1	126 6 6
Marangaroo to Meadow Flat			"	1,698 19 3	186 18 0
Meadow Flat, via Sunny Corner, to Palmer's Oakley			1891	1,540 0 1	320 3 7
Mitchell's Creek to Palmer's Oakley			1879	4,261 3 8	8 15 0
Millthorpe to Cadia			1878	8,651 13 0	281 11 4
Millthorpe to Lewis' Ponds			1890	1,461 10 10	140 9 5
Millthorpe, via Guyong, to Byng			1882	3,140 13 5	151 11 10
Monkey Hill to Hill End			1876	10,594 14 3	242 13 11
Millthorpe to Spring Hill			1896	69 4 3	69 4 3
Mandurama to Burnt Yards			1889	786 13 3	72 0 0
Mandurama to Canowindra			1873	16,436 10 5	182 4 3
Mandurama to Neville			1895	437 18 11	199 9 10
Mount McDonald to Grabine			1889	1,038 13 4	39 19 0
Matthew's to Brown's Creek			1885	2,228 5 0	53 2 3
Matthew's to Forest Reefs			1896	82 16 3	82 16 3
Mullion Railway Station to Belgravia			1891	434 2 11	48 7 0
Molong to Norah Creek			1890	658 18 3	77 14 0
Molong to Manildra Road to Gregra Railway Station			1896	74 8 0	74 8 0
Molong, via Boree and Big Flat, to Cargo			1889	1,700 16 4	129 15 0
Molong to Warne Station			1882	3,855 3 0	157 19 2
Molong, via Redbank, to Gumble			1896	46 0 0	46 0 0
Murphy's Hut to Cudal			"	112 10 0	112 10 0
Mumbil Railway Station to Burrendong			1880	1,093 16 6	93 5 0
Mullion to Long Point			1896	73 19 0	73 19 0
Moorilda to Neville			1893	1,674 9 10	548 0 0
McGrath's Hill to Marcota			1890	3,339 13 6	399 10 11
Maryvale to Cobborah Road			1896	100 0 0	100 0 0
Main West Road to Rooty Hill Station			1895	90 18 0	0 2 3
Main Windsor Road to Toongabbie Road, over Hammer's Bridge			"	37 0 8	28 0 8
Molong to Manildra			"	484 9 1	198 4 6
Manildra to Toogong			"	155 16 3	79 6 0

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com- menced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES—continued.					
Moronglo Creek towards Burrowa			1895	£ s. d. 595 0 3	£ s. d. 273 16 1
Milson's Point, <i>via</i> Lane Cove Road, to Peat's Ferry			1875	53,885 0 4	1,915 12 7
Manly, <i>via</i> Pittwater, to Barrenjoey			1879	16,087 12 0	706 5 8
Military Road, St. Leonards			1885	10,132 6 2	361 7 3
Military Road, Bondi (Land Compensation)			1896	377 9 11	377 9 11
Military Road, Randwick			1895	449 0 0	225 0 0
Mayfield Road			"	107 3 5	55 14 1
Mount Mooby Road to Dartbrook Bridge			1896	9 11 0	9 11 0
Mount Victoria to Mount York Reserve			"	37 14 0	37 14 0
Mangleson's Cutting			"	15 1 5	15 1 5
Martinsville Public School to Wilkinson's C.P.			"	78 2 6	78 2 6
Mona Vale Hill Cuttings			"	70 3 4	70 3 4
Mulbring to Ellalong			"	25 0 0	25 0 0
Mandalong to Rooney's Farm			"	67 19 0	67 19 0
Main North Road at Braxton to Railway Station			"	75 17 0	75 17 0
Miller's Forest Drainage			"	67 10 0	67 10 0
M'Leod's towards Comboyne Reserve			"	118 9 3	118 9 3
Meadowbank Railway Station Approach			"	773 7 3	773 7 3
Moonbi to Mulla Creek			"	30 0 0	30 0 0
Maryland Creek across the Border, <i>via</i> Cullenbone			"	39 18 0	39 18 0
Main Beechwood Road, up left bank Moreton's Creek			"	78 11 4	78 11 4
Muscle Creek Road to Goorangoola, Bowman's Creek Road			"	20 0 0	20 0 0
Moonbi, <i>via</i> New England Gully, to Tamworth Water Works			"	10 0 0	10 0 0
Main West Road, $\frac{1}{4}$ mile west of Ponto, to Geurie			"	12 15 0	12 15 0
Murrumbidgee to Dubbo			"	65 16 8	65 16 8
Main West Road, Glebe to Ashfield			"	254 12 0	254 12 0
Mudgee, <i>viz</i> Wilbertree, to Home Rule			"	44 2 4	44 2 4
Meadow Flat to Sunny Corner Mines			"	29 11 1	29 11 1
March to Belgravia			"	100 14 0	100 14 0
Merrendee to Yamble Bridge			"	46 11 0	46 11 0
Mewburn to Rye Park			"	8 1 6	8 1 6
Mimosa to Temora, between Bagdad Church and Wallace's			"	144 14 9	144 14 9
Main West Road to Blacktown Road (Church Road)			"	10 0 0	10 0 0
Mount Druitt to Rooty Hill Station, north side			"	10 0 0	10 0 0
Northern Road—Main			1857	629,480 9 4	5,934 3 7
Newrybar to Bangalow			1891	694 4 2	386 9 8
Narrabri to Little Mountain			"	1,040 16 9	10 16 2
Narrabri to Eulah and Bullawa Creeks			1888	2,784 13 4	139 1 0
Narrabri to Moree			1876	24,322 10 5	393 13 2
Narrabri to Pilliga			1893	2,572 19 9	489 18 10
Narrabri West, towards Coonabarabran			1896	12 5 0	12 5 0
Narrabri to Boggabri, <i>via</i> Terriaro			1883	3,070 19 5	203 3 8
Narrabri to Terry Hie Hie			"	3,249 15 6	335 17 10
North Sumarez Bridge to Uralla	Maintenance, repair, and construction.	Consoli- dated Revenue.	1896	23 17 3	23 17 3
North Arm Road, at McKay's, up Buckra, Bendine Creek, to Smith's Selections			1891	348 8 3	89 13 6
North Arm to Beach			1896	432 6 7	432 6 7
Newcastle, <i>via</i> Hamilton and Plattsburg, to Minmi			1884	7,017 14 0	560 16 3
Newcastle, <i>via</i> Islington, to West Boundary Waratah Municipality			1896	174 0 0	174 0 0
Nowendoc Road to Dolly's Flat			"	14 0 0	14 0 0
Nowendoc Road to Upper Manning			"	70 0 0	70 0 0
Nundle to Crawney			1895	174 8 3	37 14 0
Noble's Crossing, Karuah River			"	63 18 0	13 18 0
Narellan to Luddenham			1892	2,304 19 8	476 19 2
Narellan to Elderslie			1896	32 6 6	32 6 6
Nowra to Yalwal			1881	5,103 3 11	295 15 3
Nowra to Nerriga			1882	10,263 4 8	671 13 9
Nowra to Burrier			1896	18 2 0	18 2 0
Nowra, <i>via</i> Nerriga, to the Jumps			1895	39 19 0	37 16 0
Nowra Bridge to Lower Budgong			1896	276 13 2	276 13 2
Narrawa Road, near Roche's, to Pudman Road			1885	1,269 4 0	88 4 0
Nerriga to Oallen Ford			1896	47 0 2	47 0 2
Numby, <i>via</i> Graham and Frogmore, to Goulburn Road			1892	1,273 10 5	123 18 6
Nelligen to Bateman's Bay			1884	970 16 7	24 10 5
Nelligen to Milton Road, at M'Millan's			1874	1,959 1 10	48 4 6
Narooma to Tilba			1893	1,113 19 6	100 19 0
Nimitybelle to top of Brown Mountain			1892	2,687 7 1	556 9 11
Nimitybelle down Tom Grogan's Creek			1894	166 15 2	30 0 0
Nimitybelle to Count a Guinea			1896	137 1 2	139 1 2
Nimitybelle to Bobundarah			"	20 13 6	20 13 6
Narrandera to Collinroobie			1895	234 12 9	94 15 11
Narrandera to Midgeon Gates			1896	41 4 7	41 4 7
Narrandera to Old Goree Bridge			1892	869 0 3	118 0 0
Narrandera to Mumbledool and Yalgogrin			1896	164 18 11	164 18 11
Narrandera to Yalgogrin			1895	389 8 10	224 9 1
Narrandera to Hay			1896	189 17 9	189 17 9
Nimitybelle to Fiery Creek			"	69 18 0	69 18 0
Newbridge to Arthurtown and Abercrombie River			1887	16,589 10 2	506 15 4
Nymagee to Melrose			1894	473 12 3	173 0 0
Nymagee to Hermitdale			1890	2,150 3 4	579 10 3
Nymagee to Mount Boppy			1895	172 2 9	79 13 9
Nevetire to Warren			1892	1,603 5 10	96 6 5
Nymbodia to Tyringham Post Office			1895	162 19 1	64 1 6
Narromine to the Bogan			"	438 4 3	35 0 0
Newtown Bridge to Undercliff Bridge			"	1,300 12 6	210 4 6
Nicholl's Corner to Enfield Road			1896	47 0 0	47 0 0

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com- menced.	If Unfinished, Amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES—continued.					
Nelson to Rous Hill			1896	£ s. d. 17 0 0	£ s. d. 17 0 0
New England Road to Bowman Gold Fields			"	25 0 0	25 0 0
North West Corner of M'Donald's to Allandale, Cessnock Road			"	4 18 0	4 18 0
Nyngan to Buddabadah			"	67 10 0	67 10 0
North Berry Jerry to Coolomon			"	48 17 3	48 17 3
Narraburra to Temora			"	125 19 0	125 19 0
Numbly, via Taylor's Flats and Branch Creek, to Junction, with Burrowa and Narrawa Road, near Johnson's			"	62 0 9	62 0 9
Old Ballina Road			1889	517 0 10	89 8 6
Oxley Island Roads			1887	3,544 1 0	127 0 0
Old Inn to Booral Road			1889	1,755 4 11	139 0 0
Owen's Wharf, up Left Bank Kinchela Creek			1889	771 0 6	27 11 6
Outlet Road to Dungay Creek			1894	159 14 4	29 18 6
Old Bar Road to Redbank Ferry			1896	20 0 0	20 0 0
Old Condong Road			1895	246 7 9	77 6 0
Old North Road to St. Albans			1893	995 6 5	242 16 9
Ourimbah to Chittaway			1895	329 18 4	113 15 10
Ourimbah up Ourimbah Creek			1896	328 10 4	328 10 4
Oakes' to Cox's River			1893	1,682 1 2	713 8 10
Old Burra Road to Michelago			1886	1,585 11 9	92 7 11
Old Burra Road at Moore's to Naylor's			1896	25 0 0	25 0 0
Old Marulan to Oallen Ford			1895	470 4 4	201 1 5
Oberon to Caves Road			1888	3,318 17 9	144 15 7
Oberon to Jenolan			1877	5,742 10 4	312 15 3
Oberon to Shooter's Hill			"	4,738 15 8	107 6 10
Oberon to Swatchfield			1895	450 7 8	140 8 7
O'Connell to Beaconsfield			1879	5,243 16 1	214 15 10
O'Connell to South Apsley			1885	2,694 17 3	124 3 2
O'Connell to Oberon			1879	8,166 3 6	392 13 2
O'Connell Road to Cooper's Overbridge			1896	18 18 6	18 18 6
Orange to Pinnacle			1884	1,627 9 0	113 18 10
Orange to Ophir			1864	5,243 16 9	159 17 6
Orange to Warne			1896	180 0 0	180 0 0
Orange to Canoblas			1881	4,363 2 5	258 4 4
Orange to Forbes			1886	99,188 12 4	1,744 10 2
Orange and Cargo Road to Kite's Swamp to Amaroo Railway Station			1896	99 18 7	98 18 7
Orange to Carcoar			"	249 9 10	249 9 10
Orange to Icely			1881	3,646 19 4	200 1 8
Orange to Cargo Road to German's Hill to Canoblas			1896	39 0 0	39 0 0
Orange to Cargo			1888	3,613 14 10	185 0 3
Old Canterbury Road, Petersham, to Ashfield			1889	1,609 16 7	116 3 0
Old Castle Hill to Government Reserve			1896	17 0 0	17 0 0
Old Windsor Road, via Pearce's, to Blacktown Road			"	38 3 6	38 3 6
Old Gap Road, near Mundooran			"	38 0 0	38 0 0
Old Warri Road, via Manar, to Mulloon			"	44 6 8	44 6 8
Old Mila towards Forest Reserve			"	8 0 0	8 0 0
Old Junee to Merrulebale			"	100 0 0	100 0 0
O'Keefe's Lane to Ettawiongla Railway Station			"	21 6 6	21 6 6
Possum Shoot to Cooper's Shoot			1887	10,082 2 2	92 12 6
Possum Brush to Forster Road			1891	762 13 7	21 4 0
Possum Shoot to Binnaburra			1896	192 13 10	192 13 10
Pearson's to Trimble's			"	19 12 8	19 12 8
Pimlico to Wardell and Ballina Road			1889	479 16 10	54 17 6
Pimlico Road to Emigrant Creek Point			1890	327 14 8	91 13 0
Pokolbin Hills to Cessnock Road			1895	381 13 2	140 0 0
Pokolbin Hills and Cessnock Road to Cessnock and Annandale Road			"	104 0 0	74 0 0
Palmer's Island Roads			1890	1,582 7 1	284 18 9
Palmer's Plain to South Gundurimbah			1894	804 5 9	107 18 7
Pilliga to Walgett			1893	1,517 18 3	274 11 8
Pilliga, via Buglebone, to Eurie			1894	610 19 6	115 0 0
Peterkin's to Warrell Creek Ferry			1889	1,196 5 6	120 0 6
Punt Bridge, via Wamberal, to Tuggerah Lakes			1893	1,435 12 7	29 19 10
Port Macquarie to Tacking Point			1886	705 18 10	34 7 0
Port Macquarie to Walcha			1872	49,492 3 9	850 10 6
Pappenburra Creek to Cowal			1888	2,146 19 5	173 10 9
Pint-pot Creek to Chandler River			1893	404 13 0	106 13 9
Pint-pot to Kangaroo Hills			1896	109 6 4	109 6 4
Pocket to Blindmouth			1894	854 15 8	184 15 8
Pearce's, via Behan's, to Eatonsville			1895	260 2 6	123 2 6
Pearce's Creek to Booyong Railway Station			1896	37 5 6	37 5 6
Paterson to Vacey			"	196 13 8	196 13 8
Pitnaeree Bridge to Dunmore Bridge			1895	261 5 0	134 0 0
Punkalla to Narooma			1896	37 10 0	37 10 0
Pambula to Bald Hills			1890	174 18 0	9 9 0
Pambula to New Buildings			1896	439 7 10	439 7 10
Pambula to Merimbula Junction			1867	4,698 19 0	309 17 0
Pambula to Back Creek			1896	128 19 11	128 19 11
Picton, via Oakes, to Werombi			1874	17,557 10 9	356 9 7
Picton Lakes Railway Station to Bargo River			1896	94 15 4	54 15 4
Perico to Wog Wog			1889	1,114 11 8	95 11 4
Prahran to Snowy Plain			1890	1,570 2 9	244 9 3
Perth to Mount Evenden			1895	294 18 2	131 18 6
Perth, via Charlton, to Rockley			"	1,029 15 3	338 19 6
Phillips' to Solferino			"	338 0 0	233 0 0
Parkes to Comadgery			1888	2,012 12 11	179 13 10
Parkes to Balderogery			1887	1,763 16 0	47 5 6

Maintenance,
repair, and
construction.

Consoli-
dated
Revenue.

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense defrayed.	When Com- menced.	If Unfinished, Amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES—continued.					
Parkes, <i>via</i> Alice Town, to Peak Mill.....			1895	£ 2,057 15 11	£ 952 18 0
Parkes, <i>via</i> Trundle, to Condobolin			1884	10,034 5 11	487 17 6
Parkes to Condobolin Railway Roads in approach			1896	427 13 6	427 13 6
Parkes to Manildra			1895	651 3 1	270 17 6
Penrith, <i>via</i> Castlereagh, to Blacktown Road, at Larras Grant.....			1894	535 10 1	185 4 0
Portland Ferry, <i>via</i> Mitchell's, to Wiseman's Ferry			1895	192 19 3	73 6 0
Portland Ferry, <i>via</i> Hall's, to Sackville Ferry Road			"	227 11 2	91 7 6
Portland Ferry to Leets Vale Road			1896	50 0 0	50 0 0
Parramatta to Pennant Hills			1885	1,378 12 9	93 5 0
Parramatta Park to Toongabbee Creek			1896	125 0 0	125 0 0
Parramatta, at East end of Broken Back Bridge, <i>via</i> Windsor and Rich- mond, to Richmond Bridge			1889	6,675 4 3	893 16 11
Pearce's Corner to Pennant Hills			1884	2,885 8 1	155 17 2
Pearce's Corner to Brooklyn Railway Station			1894	1,016 5 6	240 4 3
Pearce's Corner to Berowra Creek			1885	654 8 1	22 1 0
Pennant Hills Road to Mould's Corner			1892	666 7 11	97 19 0
Pennant Hills to Hornsby Cutting Down Hill			1896	125 11 3	125 11 3
Pennant Hills to Carlingford			1895	136 0 0	106 0 0
Pennant Hills Road to Thornleigh Quarry			"	48 8 10	27 15 8
Pennant Hills Road to Beecroft Station			"	68 2 0	18 2 0
Piper's Flat to Sunny Corner			"	299 0 9	252 14 3
Prospect to Richmond			1896	254 8 0	254 8 0
Petersham to Abattoirs			1886	5,432 10 7	385 19 7
Park Road			1895	200 0 0	100 0 0
Page's Ferry to Wheeney			1896	26 12 0	26 12 0
Penshurst to Allyn River			"	80 0 0	80 0 0
Pokolbin Village Reserve to M'Donald's			"	100 0 0	100 0 0
Paynes Bridge up Stockyard and Bagnell's Creeks			"	15 0 0	15 0 0
Pretty Pine to Moulamein			"	254 9 0	254 9 0
Public School at Kendall to Logan's Crossing			"	24 10 6	24 10 6
Parsonage at Castle Hill to Windsor Road			"	10 0 0	10 0 0
Pennant Hills Road towards Tunks			"	10 0 0	10 0 0
Quirindi to Gunnedah			1894	573 3 3	143 1 10
Quirindi, <i>via</i> Bundells, to Bomera			"	5,861 5 2	813 8 4
Quirindi, up Jacob and Joseph Creeks			1879	1,407 8 2	142 12 3
Quirindi to Werris Creek			1891	192 19 6	40 2 6
Quirindi to Warrah Ridge			1896	33 18 8	33 18 8
Quirindi, towards Borah Creek			1894	275 13 4	136 15 5
Quirindi to Willow-tree			"	513 15 4	132 14 7
Quilkie's, down Taylor's Arm, South Side			"	372 3 11	108 9 0
Quipolly Platform to Lowe's Creek			1895	13 17 0	5 19 0
Quambone to Warren			1894	346 2 7	73 5 8
Queanbeyan to Uriarra and Teamas Road	Maintenance, repair, and construction.	Consoli- dated Revenue.	1881	3,052 3 3	162 18 11
Queanbeyan to Gundaroo			1874	2,551 6 0	170 0 8
Queanbeyan to Gudgenby			1891	880 3 0	181 2 1
Queanbeyan to Ginninderra Road to Road Queanbeyan to Uriarra Post Office			1896	27 16 10	27 16 10
Queanbeyan to Ginninderra			1878	10,028 6 1	168 19 8
Queanbeyan to Braidwood			1896	279 8 0	279 8 0
Reddacliffe's to Brunswick River			1892	1,827 2 11	116 9 3
Red Range Road to Bear Hill			1894	565 18 6	153 18 7
Rous Factory, <i>via</i> Beeson's, to Wardell Road			1890	1,767 1 6	27 13 0
Road up Left Bank, Wilson's River			1894	372 0 4	91 0 0
Red Hill to Kerr's			1892	1,231 10 11	236 1 11
Road up Forbes River			1896	61 6 3	61 6 3
Rockvale to Kookabookra			1890	750 2 1	99 15 6
Rocky Creek to Terry Hie Hie			1892	752 3 10	26 9 5
Rothbury Public School, Allandale, road to			1894	130 0 0	40 0 0
Road from West Corner of M'Donald's to Cessnock			1895	46 15 8	16 10 0
Rolland's Plains to Dungay Creek			1892	2,990 6 11	144 4 0
Rolland's Plains to Ballingarra Wharf			1895	148 9 9	74 5 6
Rawden Island Roads			1885	1,108 9 1	103 18 0
Raymond Terrace and Stroud Road to Saltash			1893	811 6 6	184 13 0
Raymond Terrace and Morpeth Road to Martin's Wharf			1891	553 0 9	56 17 0
Raymond Terrace and Stroud Road to Raymond Terrace and Seaham Road (Miskell's Road)			1890	194 4 10	36 15 0
Raymond Terrace and Stroud Road to Raymond Terrace and Clarence- town Road (Caswell's Road)			1891	328 9 2	67 9 0
Raymond Terrace by East side Williams River to Seaham			1884	3,134 11 1	380 9 1
Raymond Terrace to Morpeth			1891	4,119 19 4	324 6 9
Raymond Terrace and Hinton Road to Seaham			1896	65 5 6	65 5 6
Raymond Terrace and Morpeth Road to East Maitland			1894	4,119 19 4	314 0 1
Raymond Terrace to Mount Kanwary			1896	94 16 6	94 16 6
Raymond Terrace to Williamstown			1894	401 19 5	62 15 6
Raymond Terrace and Morpeth Road to Tarro			1896	120 0 0	120 0 0
Redbank to Merregoan			1894	164 1 0	50 0 0
Roads on left bank, Macleay, Skillion Flat to Five-day Creek			"	802 13 2	230 4 7
Rutherford to Scotch Corner			1895	238 7 4	118 7 4
Rutherford to Scotch Corner, Road <i>via</i> Hillsborough and Luskintyre Road			"	137 10 9	49 10 9
Rutherford and Telara to Fishery Creek and Teggs			1896	40 0 0	40 0 0
Road to Thone Creek			1895	430 4 8	228 11 0
Ridgeway's, <i>viz</i> Monkerai, up Karuah River			"	503 5 6	91 14 0
Road through Warren to Savell's			"	90 6 1	25 15 6
Road through Paterson's			"	268 13 3	131 5 0
Road through Harbord Estate			"	68 0 4	29 8 0

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com- menced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1895, to 30 June, 1897.
ROADS AND BRIDGES—continued.					
Ray's Road Carlingford			1896	£ 38 5 8	£ 38 5 8
Round Corner at Dural to Rouse Hill			1894	149 0 0	84 0 0
Round Corner at Dural to Wiseman's Ferry			1895	550 1 3	329 5 5
Ryan's to the Border			"	186 10 0	40 17 8
Redbournberry Bridge to Dyrring			1896	50 0 0	50 0 0
Rouchel Store to Stoney Creek			1895		
Rouchel P. S., up Back Creek, from Road Aberdeen to Scrumlow ..			1896	26 13 9	26 13 9
Rob Roy to Reedy Creek			1895	449 19 6	269 19 6
Road up South Branch, Orara River			"	164 3 0	50 3 0
Road up Right Bank, German Creek			"	69 2 0	9 2 0
Road between Nimbea Road and Goolmangor Creek			1896	53 3 11	53 3 11
Robertson, via Macquarie Pass, to Glenquarry			1890	2,844 0 1	464 19 9
Robertson to the Cemetery			1895	103 19 3	57 19 3
Robertson to Fountindale			1896	82 3 8	82 3 8
Richlands to Wombeyan Caves			1887	1,112 17 9	95 12 0
Rock Station, via French's Park, to Green's Gunyah			1894	499 12 0	135 12 8
Riley's Crossing, via Batlow, to Bago			1892	640 8 8	93 18 0
Runnymede to Buckenboursa			1894	163 12 9	32 11 9
Rock Station to Urana			1883	11,043 19 5	233 7 4
Rosewood to Humula			1891	1,232 0 11	39 8 0
Run of Water to Winderradean			1895	341 19 9	159 7 4
Run of Water to Parkesbourne			1887	517 7 2	24 18 8
Rous Hill and Dural Road to Kenthurst to Fisher's			1896	75 0 0	75 0 0
Rouse Hill to Schofield's Platform			1888	958 2 5	89 19 3
Richmond towards Dr. Clarke's Bridge			1896	29 3 8	29 3 8
Richmond Bridge to King's Road			1888	8,715 2 8	829 15 4
Richmond to Cornwallis			1896	23 14 8	23 14 8
Rooty Hill Station to Blacktown Road			1895	200 0 0	100 0 0
Reservoir to Cadia			1896	266 15 8	266 15 8
Rydal to Hampton			1894	2,302 1 11	198 5 11
Rankin's Bridge to Monkey Hill			1896	156 18 6	156 18 6
Rockley to Trunkay			1874	5,599 11 11	141 15 0
Rockley to Swallow Nest			1880	2,672 9 5	60 8 0
Rylstone to Bylong			1886	3,106 1 9	228 16 0
Rylstone to Norongo			1895	88 11 10	79 9 10
Rylstone, via Begie, to Capertee			"	302 19 9	84 9 4
Road past Callan Park Asylum			"	140 0 0	35 0 0
Randwick Toll-gate to La Perouse			1893	1,973 8 5	309 7 8
Randwick and Coogee Roads			"	3,750 0 0	1,000 0 0
Roads within limits of Hurstville, Rockdale, Canterbury, &c.			1894	4,827 13 4	1,156 13 4
Reedy Flat to Orange and Cadia Road			1895	68 7 0	18 4 0
Roslyn Road to Chain of Ponds			"	116 19 1	73 0 5
Reidsdale to Warrumbueca			"	56 10 10	43 15 10
Raby to Minto	Maintenance,	Consoli-	1896	10 2 6	10 2 6
Rhine Falls to Bolaro	repair, and	dated	1895	159 2 0	100 0 0
Redbournberry Bridge to Scott's Flat	construction.	Revenue.	"	97 17 4	65 17 4
Reedy Creek to Casilis			1896	402 10 11	402 10 11
Road to Wallamba Church and School			"	11 0 0	11 0 0
Roads in vicinity of Whiteman's Creamery			"	23 0 0	23 0 0
Round Mountain Road			"	29 16 6	29 16 6
Road along Byron Bay Racecourse Reserve towards Tintenbar			"	15 0 0	15 0 0
Road from Municipal Boundary in Kemp-street, Kempsey, to Frederickton Road			"	36 18 8	36 18 8
Road from Selection 152, parish Castlereagh, to Nepean Road			"	75 0 0	75 0 0
Riverslea to Wyangala			"	100 0 0	100 0 0
Road from south-east corner of portion 108, Rous towards Henty ...			"	39 7 6	39 7 6
Road from junction with road, Urana to junction with Henty, Munyalba Road			"	19 10 0	19 10 0
Road between Camden to Oaks Road and Cawdor to Westbrook Road			"	9 0 0	9 0 0
Road running east of Walla Walla Railway Station			"	21 15 0	21 15 0
Road off Tunks Road towards Shields			"	5 0 0	5 0 0
Rooty Hill, Blacktown Road towards South Creek			"	10 0 0	10 0 0
Road off Haven Road towards works			"	10 0 0	10 0 0
Road from Oaks to Old Windsor Road			"	15 0 0	15 0 0
Road from Toongabbie Public School towards Railway Station			"	15 0 0	15 0 0
South Lismore to Wyrallah			1887	2,811 1 10	425 14 6
South Lismore, Coraki Road to Nixon's			1896	39 12 10	39 12 10
Swan Bay to New Italy			1890	1,597 6 5	170 8 6
Swan Bay to New Italy Road to farms in New Italy			1896	35 0 0	35 0 0
Southgate to Flood Reserve			1894	120 2 6	19 15 10
Shark Creek, at McNaughton's, and Broom's Head			1896	34 6 3	34 6 3
South Grafton to Ulmarra			1886	9,314 18 0	193 10 0
South Grafton to Perrett's			1890	13,845 14 3	1,491 15 8
South Grafton to Perrett's, alteration at Clougher's Creek			1896	226 12 7	226 12 7
South Grafton to Rushforth			1888	843 19 6	107 7 11
South Grafton to Moonee			1892	5,869 18 1	1,315 11 1
Stoney Pinch up Stockyard Creek			1894	439 19 9	102 17 10
Stoney Pinch to Smith's Creek			1890	281 1 9	25 13 0
Stony Creek to Lane Cove Road (Telegraph Road)			1896	41 12 0	41 12 0
Stoney Creek to Murray's Flat			1895	37 16 0	25 7 0
Stoney Creek to Morton's Creek			1892	297 14 11	80 13 0
Salisbury Plains to Kentucky			1887	808 18 5	69 3 3
Stewart's Brook to Top Camp			1896	78 5 0	78 5 0
Seaham Punt by East side Williams River, to Clarence town			1896	86 3 0	86 3 0
Stroud to Dungog			1876	7,333 9 8	1,193 19 0
Stroud Road to New Wharf			1891	435 15 6	25 8 0
Stewart Town to Monkerawa Road			1895	100 0 0	40 0 0
Stockton to Saltash			1894	2,675 9 9	581 14 3

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com- menced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES—continued.					
Seven Oaks to Trial Bay			1882	£ s. d. 14,273 12 1	£ s. d. 658 9 11
Saltash to Nelson's Bay			1894	523 4 8	267 17 8
Sandy Creek to Mount Vincent			1892	1,092 19 1	395 9 5
Sandy Creek to Millfield			1893	477 10 8	166 3 2
Sandy Hollow to Weddin Creek			1894	102 3 0	24 14 0
Scone, Merriwa Road, up Middle Creek			1893	420 2 10	130 16 10
Scone to Denison Diggings			1879	7,763 10 0	24 9 6
Scone to Moonan Brook			1896	332 19 3	332 19 3
Scone to Bunnan			1877	7,820 1 2	193 3 4
Scotch Creek Road			1891	564 8 5	30 0 0
Singleton and Jerry's Plains Road to Warkworth			1896	29 0 0	29 0 0
Singleton via Warkworth, to Jerry's Plains			1890	1,851 10 4	124 1 0
Singleton to Brandy Creek			1896	50 0 0	50 0 0
Singleton to Cooper's Flat			1884	5,660 5 11	365 11 0
Singleton via Maison Dieu, to Jerry's Plains			1896	132 5 6	132 5 6
Singleton via Whittingham Reserve to Broke			"	109 11 1	109 11 1
Sherbrook to Wabro Creek and Willi Willi			1894	598 18 10	164 13 9
Stonehenge to Graham's Valley			"	128 11 4	25 7 6
Synnot's to Funnell's (Jiggi Creek Road)			1888	2,993 14 7	286 18 9
Sedgefield, via Glendon Bridge, to Gresford Road			1894	66 5 0	28 2 0
Sharp's, up East Bank Orara River			"	680 17 7	257 2 2
Saddler's Creek Road			1895	127 3 4	48 3 6
Solway's to Gineroi			"	105 19 6	26 0 0
Stockinbingal to Grogan			"	45 0 0	119 14 6
Sutton Forest to Main South Road			1887	830 0 1	58 11 11
Sutton Forest via Exeter to Foster's Gate			1896	326 10 7	326 10 7
Sutton Forest to Bundanoon			1882	2,852 0 8	63 1 9
Sergeant's Point, via Charley's Forest, to Wog Wog			1894	482 15 9	129 2 7
Sergeant's Point to Clyde Road			1887	791 9 9	26 14 4
Sergeant's Point to Clyde Road at Mongarlom, to Budawang			1896	10 0 0	10 0 0
Southern Road, Main			1857	701,406 7 2	5,549 5 11
South Creek to Luddenham			1894	543 4 6	78 16 6
Saunders' Corner to Kenthurst			1895	92 15 9	67 13 9
Sofala to Rylstone, at Moore's, to Warrangania			1896	37 0 0	37 0 0
Sofala to Rylstone			1878	8,871 17 2	201 3 7
Sofala to Palmer's Oakley			1896	70 14 8	70 14 8
Spring Terrace to Long Swamp			1887	1,744 18 1	69 9 0
Spring Hill Station to Orange and Cadia Road			1870	2,575 12 3	81 18 5
South Head Roads			1888	35,602 10 0	2,500 0 0
Sydney to Bank's Meadow			1894	2,277 5 5	1,989 8 2
Sydney, via Dam at Cook's River, to "Half-way House"			1876	90,018 4 3	2,963 0 1
Stanmore Road from Enmore Road to Canterbury Trust Road	Maintenance, repair, and construction.	Consoli- dated Revenue.	1894	1,393 19 0	118 19 0
St. Mary's to Blacktown Road via Llandilo			1895	269 16 7	89 13 0
St. Mary's to Orphan School Road			"	119 18 0	19 18 0
Shadforth to Wiley's Junction			1896	104 5 4	104 5 4
Sewer Road, Botany			1895	580 6 10	350 8 11
South Head Road, at Watson's Bay, to Military Reserve Gates			"	101 16 8	33 16 8
Stewart Town to Golden Gully			"	60 19 5	0 10 9
Stanthorpe Road, via Tangoria, to Singleton and Gresford Road			1896	54 0 0	51 0 0
St. Albans to Mount Manning			"	168 8 0	168 8 0
St. Albans Common to "Broad and Harrington Arms"			"	21 0 0	21 0 0
St. Albans, via Sheen's and Wright's Creek, to Book's Ferry			"	84 0 0	84 0 0
St. Alban's, up McDonald River			"	167 0 0	167 0 0
Sternbeck to Wiseman's Ferry			"	21 0 0	21 0 0
Slack's Creek to Middlingbank			"	208 4 8	208 4 8
Stoney Creek to Picton Municipality			"	70 0 0	70 0 0
Sylvania to Loftus Junction			"	52 10 9	52 10 9
Sylvania to Port Hacking			"	175 14 11	175 14 11
Seven Hills Road to Vardy's Grant			"	25 0 0	25 0 0
Springwood to the Hawkesbury			"	150 0 0	150 0 0
Sackville Road, near Ebenezer and Page's Ferry, to Maroota			"	42 12 2	42 12 2
South-west end of Narara Railway Platform to Old Mangrove Creek			"	35 0 0	33 0 0
Shark Island to Highlands, through J. Loughnan's			"	40 0 0	40 0 0
Sixteen-mile Tank to Wyalong			"	394 10 4	394 10 4
Sutton Forest Road to Stone-quarry Creek			"	97 7 8	97 7 8
Stone-quarry Creek Road, &c., towards Meryla			"	47 3 2	47 3 2
Toohey's Mill to Hogan's			1892	955 17 7	147 19 0
Trial Bay, towards Smoky Cape			1893	86 8 4	26 18 0
Trial Bay to South West Rocks			1895	92 5 6	23 17 6
Two-mile Creek to Newrybar			1889	413 6 4	79 2 6
Tumbulgum to Tweed Heads			1894	663 18 4	205 10 3
Telegraph Point to Hack's			1896	8 0 0	8 0 0
Tabulam to Myall Creek			1892	3,189 8 10	557 17 7
Thorburn to English's			"	452 19 1	104 2 0
Thorburn to Kelly's			1891	437 15 3	89 8 3
Tucki to Munro's Wharf			1894	288 18 5	138 4 5
Tucki to Rous			1891	1,263 16 0	259 13 10
Tuckombil to Rous			1894	394 10 6	220 8 6
Tintenbar to Pearce's Creek			1896	96 8 4	96 8 4
Tintenbar to Binna Burra			"	300 13 10	300 13 10
Tintenbar to Alstonville			1883	5,258 14 8	328 4 9
Tintenbar to Toohey's Mill			1884	2,488 18 11	147 9 7
Tenterfield to Scrub			1885	1,721 1 9	149 2 9
Tenterfield to Wallangra			1888	2,073 17 0	108 10 0
Tenterfield to Bonshaw			1878	16,862 5 5	639 18 9
Tenterfield to Swamp Oak Creek			1894	289 10 5	166 1 6

RETURN OF EXPENDITURE ON PUBLIC WORKS—*continued.*

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com- menced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from, 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES— <i>continued.</i>					
Tenterfield to Ballina			1891	£ s. d. 40,069 6 1	£ s. d. 4,465 11 7
Tent Hill to Table-land			1888	1,644 4 1	108 17 0
Thompson's, up Dairy Arm			1896	38 0 0	38 0 0
Tingha to Elsinore			"	264 11 3	264 11 3
Tweed River at Kyle's, to North Arm at Quain's			"	25 0 0	25 0 0
Tinonee Road to Failford			1894	607 16 0	201 0 0
Tinonee to Old Bar Reserve			1895	128 16 0	119 14 0
Tinonee to Wingham Ferry			1876	2,981 11 5	129 16 11
Tinonee to Killawarra			1892	402 14 10	50 0 0
Tinonee to Bootawah			1895	178 3 11	54 5 6
Taree Ferry to Glenthorne Wharf			1896	17 17 8	17 17 8
Taree towards Tuncurry			1883	3,693 4 10	320 0 6
Taree to Wingham			1892	1,172 15 10	137 18 6
Trangie to Collie			1895	341 1 2	199 1 2
Ten-mile Hollow to Mangrove Creek			1896	0 3 4	0 3 4
Trangie to Nevertire			1895	437 7 9	385 7 9
Twelve-mile, Stroud Road, to Sawyer's Point			1892	788 7 1	119 11 1
Timor to foot of Crawney			1896	66 18 6	66 18 6
Top Bingera Road			1895	78 4 9	41 12 9
Teralba to Cockle Creek			"	127 5 5	88 3 2
Tuggerah Beach Road to Selections east of Matcham's			1896	34 0 0	34 0 0
Tamworth to Nundle			1878	23,694 9 5	618 18 3
Tamworth to the Forest			1883	592 19 11	28 6 8
Tamworth to Barraba			1891	14,079 13 7	1,908 18 2
Tamworth to Werris Creek			1896	149 19 7	149 19 7
Tamworth, via Moore Creek, to Attunga			1878	2,123 16 10	180 0 0
Tamworth to Somerton			1891	2 702 0 3	295 9 0
Teven to Ferry, south side			1894	333 2 7	109 13 0
Tatham to Myrtle Creek			1891	758 18 4	187 18 9
Tallaganda Crossing up Jerrabut Gully			1894	190 5 10	56 8 5
Tyagarah to Boyle's			1895	386 13 0	111 11 6
Topfies to Duffies			"	51 15 0	27 0 0
Turrumurra to Bobbin Head			"	347 18 8	112 11 8
Tea Gardens to Alicetown			"	160 11 10	120 11 10
Thirlmere to Bargo River			1892	457 5 4	75 5 0
Towrang, via Greenwich Park, to Long Reach			"	2,947 15 6	220 18 4
Towrang to Arthursleigh			1896	77 9 6	77 9 6
Taralga to Rockwell			1891	2,371 0 6	210 11 5
Taralga, Rockwell Road, to the Cemetery			1896	43 17 3	43 17 3
Taralga to Bummaroo Ford			1895	98 17 2	87 1 2
Taemas Bridge to Brindabella			1891	2,122 13 9	216 6 11
Turlingah to Nerrigundah			1895	55 12 0	24 10 0
Turlingah to Tuross Heads			"	86 1 10	69 1 10
Tarago to Braidwood			1866	88,181 15 0	864 4 10
Termeil Post-office to Milton			1891	1,174 13 2	122 12 3
Towamba to Bondi Road to the Cemetery			1896	32 19 0	32 19 0
Towamba to New Buildings			1894	1,198 2 4	122 17 0
Towamba to New Buildings Road to Towamba to Bondi Road			1896	48 0 1	48 0 1
Towamba to Bondi			1887	2,001 18 6	129 0 1
Turner's Store, via Linburn, to Blackman's			1896	30 0 0	30 0 0
Tocal to Paterson			"	62 14 6	62 14 6
Tharwa to Tiddinbilly			1890	399 7 9	54 9 5
Town's Road from Black's towards Town's			1896	5 0 0	5 0 0
Thirroul to Public School			1895	37 7 6	19 16 0
Tourist's Road to Parish's Farm			1896	14 10 0	14 10 0
Tumut, via the Plains, to Jones' Bridge			1891	993 18 3	124 1 8
Tumut up the Goobargandra River			1896	39 18 0	39 18 0
Tumut, via Piper's, up Bembowlie Creek			1894	229 6 8	57 12 0
Tumut to Kiandra			1873	13,373 6 5	597 13 5
Tumut, via Brungle, to Gundagai			1870	6,707 3 3	497 12 4
Tumut to Adelong			1868	14,487 17 1	253 3 5
Tumut to Tomorroma			1891	1,162 7 6	313 12 7
Tumut to Lac-ma-lac			1871	3,136 12 11	277 15 9
Tumut to Gundagai			1864	28,308 5 11	1,093 7 1
Temora to Wyalong			1887	11,461 2 8	1,346 19 4
Temora to Wyalong "Relief Works"			1896	28 0 0	28 0 0
Temora to June Junction			1888	2,525 16 2	354 4 11
Temora to June Junction, near Cooney, to Merulebale			1896	49 8 1	49 8 1
Temora to Mandamar			1894	839 14 2	210 8 6
Temora to Trungle			1896	160 15 0	160 15 0
Tumbarumba to Courabyra			1893	401 15 5	35 14 6
Tumbarumba, via Tooma, to Walaregang			1878	17,840 16 1	368 17 4
Tumbarumba to Bago			1890	2,167 14 8	249 2 3
Tumbarumba to Upper Burra			1894	140 14 0	16 15 0
Tumbarumba to Jingellie			1882	14,254 3 8	241 1 7
Tumbarumba to Little Billabong			1876	24,610 10 1	656 16 4
Tooma to Walaregang			1896	201 0 2	201 0 2
Thompson's Creek to Portland			1894	349 2 2	149 0 2
Tuena Road to Sherwood			1893	256 17 6	38 1 4
Tarana to Oberon			1888	3,731 13 0	359 0 3
Tarana towards Rydal			1895	206 17 8	44 6 10
Tarana to Rydal Road to the Meadows, via Honeysuckle Falls			1896	12 9 0	12 9 0
Tallawang Road to "Goodman Inn"			1893	403 3 5	77 13 6
Treweek's to Lewis Ponds			1895	257 19 4	128 5 4
Tallywalka Embankment Fencing			1896	44 10 0	44 10 0
Tabrabucca to Hamond's			"	78 4 10	78 4 10

Maintenance,
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RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When com- menced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES—continued.					
Tomki Estate Road, through from Tatham, Lismore Road.....			1896	£ s. d. 7 8 9	£ s. d. 7 8 9
Thalaba, via Major's Creek, to Stroud			"	33 6 0	33 6 0
Taylor's Flats, via Bolong and Phillis Creek, to junction with Burrows, Narrawa Road			"	20 12 6	20 12 6
Tarraganda to Reedy Swamp			"	108 0 0	108 0 0
Thirlmere, via Westbourne Avenue, across Noonan's Bridge, to Howarth's Farm			"	14 10 0	14 10 0
Toongabbie Post Office and Public School and Church towards Railway			"	30 0 0	30 0 0
Uralla to Bundarra			1879	21,140 5 1	274 11 6
Ulmarra to Yamba			1893	3,918 17 7	838 10 2
Ulmarra to Corindi			1887	1,611 9 10	171 5 9
Uralla, via Balala, to Kingstown.....			1881	3,471 2 0	129 12 3
Uralla, via Gostwycke, to Rockwood			1894	245 16 2	75 13 10
"Union Inn," Rutherford, to Melville Ford			1885	811 7 6	50 15 4
Union Church to Southgate Wharf.....			1889	2,426 15 10	68 5 8
Underbank to Upper Chichester.....			1896	107 13 0	107 13 0
Underbank to Upper Williams.....			1893	355 5 7	134 11 7
Umbango, via Oberne, to Tarcutta			"	777 9 10	79 1 0
Ulundry to Obley			1894	178 7 0	96 7 0
Urana to Boree Creek			"	85 1 4	42 0 0
Urana to Brookong Diggings			1896	9 0 0	9 0 0
Upper Dartbrook and Sparke's Creek Road			1895	242 17 4	54 2 10
Upper Dartbrook to Upper Wybong			1896	13 8 0	13 8 0
Upper Lansdowne Roads			"	365 5 0	365 5 0
Upper Road to Eastwood			1892	1,041 0 0	175 0 0
Upper Pictou to Windmill Hill			1895	26 8 0	14 0 0
Upper Karaah Flat to Wingham-Nowendoc Road			"	60 0 0	30 0 0
Upper North Creek to Byron Bay Road			1896	24 19 1	24 19 1
Upper Camden Haven to Laurieton, road up Black's Creek to Perrott's C.P.			"	36 0 8	36 0 8
Upper Boggy Creek Road.....			"	14 2 2	14 2 2
Violet Dale up Dumaresq Creek			1894	243 9 3	81 4 4
Vacey to Gresford			1896	283 13 2	283 13 2
Vacey to Summer Hill			"	67 0 0	67 0 0
Vineyard School to Pitt Town Common.....			"	37 8 4	37 8 4
Woodfordleigh to Tynedale.....			1895	794 4 2	67 1 5
Wyrallah to Rous			1888	8,931 6 4	271 6 6
Webster's to Flood's			1896	80 0 0	80 0 0
Wee Talaba, via Angledool, to Goodooga			1893	326 6 4	87 0 1
Wardell, Rous Road, to Alstonville.....			1891	974 1 5	60 14 3
Wardell to Rous			1895	1,060 0 3	479 7 0
Wardell to Emigrant Creek Bridge			1890	1,394 10 2	206 0 10
Wardell to the Beach			1891	514 14 2	6 10 0
Woodburn to Bungawalbyn Ferry			1892	1,111 1 5	151 0 0
Woodburn to Evan's River Heads			1895	72 18 9	23 16 9
Woodburn to Tucki			1891	2,915 1 2	461 19 3
Woodburn, Wardell Road, to the Beach			1896	18 10 3	18 10 3
Woodburn to Boundary Creek.....			"	302 9 0	302 9 0
Woodburn to Boundary Creek at Blanche's			"	17 6 0	17 6 0
Woodburn to Dungarubba			1891	1,404 3 6	160 14 0
Woodburn to the Gap (Iluka Road)			1893	429 1 9	92 16 4
Waterview to Ramornie			1891	284 2 9	79 19 6
Walla Walla Roads			1895	113 0 0	40 0 0
West Branch, Orara River, to Buchanan's			1891	974 12 2	145 10 0
Whiteman's Creamery to Whiteman's Bridge			1896	52 10 0	52 10 0
Warialda to Bogamildi			1894	595 8 1	211 4 8
Warialda to Inverell.....			1896	903 12 11	903 12 11
Warialda to Yetman.....			1876	9,420 5 8	210 19 0
Warialda to Gunyerwarialdi			1879	5,590 11 10	282 11 8
Warialda, via Gragin, to Reedy Creek			1886	1,038 3 2	71 8 8
Warialda, via Ezzie's, to Moree			1876	25,492 9 4	124 1 0
Wilson's Downfall to Rivertree			1887	4,850 3 3	171 5 8
Wilson's to Sneath's			1896	71 0 0	71 0 0
Wellingrove to Strathbogie and Bonshaw			1889	2,017 18 5	36 7 0
Wandsworth to "Old Ben Lomond Inn"			1888	1,193 5 2	50 1 0
Wallangra to Strathbogie.....			1894	363 18 2	190 4 2
Wallangra to Boggabilla			1895	1,312 12 1	1,068 13 8
Walgett to Combogolong			1892	639 10 1	84 18 2
Walgett to Goondabloui			1896	300 0 0	300 0 0
Walgett Road, to Wee Waa, to Pian Creek			1891	315 7 3	22 14 6
Walgett, via the Springs to Brewarrina, Goodooga Road			1896	198 5 9	198 5 9
Walgett, via Goodooga, to Brenda			1893	1,772 11 10	369 12 10
Walgett to Corinda			1896	121 16 3	121 16 3
Walgett towards Brewarrina			1894	269 8 0	109 0 0
Walcha Road to Walcha			"	919 18 11	199 1 6
Walcha Road to Niangla			1896	200 0 0	200 0 0
Walcha to Emu Creek			1893	226 19 7	37 16 3
Walcha to Eulo			1892	941 8 7	200 0 0
Walcha to Aberbaldie			"	327 6 5	90 0 0
Wingham, up Cedar Party Creek.....			1882	2,710 16 5	212 3 3
Wingham and Nowendoc Road to Karaak Flat			1884	708 4 8	39 11 4
Wingham, via Brimbin, to Lansdown			1885	778 10 6	34 19 6
Wingham to Nowendoc			1883	17,511 9 5	965 17 6
Wingham, via Ashlea, to Kelvin Grove.....			1876	3,740 14 2	291 16 0
Wingham, via Bungay, to Bo Bo Creek			1895	86 7 6	48 0 0

Maintenance,
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RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com- menced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897
ROADS AND BRIDGES—continued.					
Wilson's River, <i>via</i> Bar Scrub, to Walcha.....			1877	£ s. d. 3,537 11 4	£ s. d. 198 1 9
Wauchope to Beechwood			1890	406 16 2	78 6 9
Wauchope to Heron's Creek			1892	1,794 3 9	259 19 7
Wyong, <i>via</i> Tuggerah Lakes Platform, to Water Reserve No. 76			"	828 1 0	78 13 10
Woodbury's to Yarramalong			1896	345 19 5	345 19 5
Wyong to Allison's			"	150 0 0	150 0 0
Warkworth to Putty			1879	11,543 1 3	675 0 0
Warkworth, <i>via</i> Bulga to Holmes Creek			1896	43 14 3	43 14 3
Wollombi to Cessnock			1893	3,216 1 4	530 1 10
Wollombi and Wyong Road to Olney Reserve			1896	105 14 3	105 14 3
Woy Woy to Blackwall			1894	130 7 1	67 15 7
Wollombi Road to Ellalong			1895	167 3 8	71 16 8
Wollombi to Congewai			1890	1,779 17 11	228 8 2
Wollombi Road to Howe's Valley			1896	36 5 3	36 5 3
Wollombi up Yango Creek			1892	646 9 6	51 15 0
Wollombi up Narone Creek			1896	31 1 0	31 1 0
Wiseman's Ferry to Broke			"	848 7 7	848 7 7
Wiseman's Ferry to Mouth Mangrove Creek			"	156 6 0	156 6 0
Wallsend to Gosford Road, at Cooranbong			1878	12,024 2 4	464 16 7
Wallsend to Sandgate Cemetery			1884	356 1 0	76 4 9
Wallsend to Lake Macquarie			"	773 15 8	125 17 1
West Wallsend Relief Works			1895	320 7 6	58 0 0
West Maitland to Dunmore			1883	4,044 2 10	237 9 4
West Maitland to Mulbering Creek			1894	250 0 0	150 0 0
West Maitland to Cessnock			1892	3,271 17 10	1,043 7 5
West Maitland, <i>via</i> Louth Park, to East Maitland			1894	250 0 0	100 0 0
Waratah towards Maitland			1882	14,515 1 3	761 4 9
Woodtown towards Quirindi			1896	45 9 0	45 9 0
Wallabadah to Quirindi			1878	5,619 12 5	241 16 2
Wallabadah to Nundle and Swamp Creek			1882	6,483 2 0	216 13 2
Woolamon to Cadells			1892	144 0 1	20 17 0
Werris Creek Gap to Railway Station			"	120 5 7	20 0 0
Walcha to Nowendoc			1879	5,460 7 9	397 14 10
Walcha to Uralla			1877	4,866 5 2	43 14 9
Walcha to Port Macquarie			1895	445 7 4	445 7 4
Waterfall to Otford Hill			1890	1,500 15 2	246 7 11
Waterfall to Otford Hill Deviation at Helensburgh Railway Station			1896	202 13 0	202 13 0
Wheeo towards Crookwell			1884	4,543 19 5	95 10 1
Wheeo to Binda			1877	2,508 10 11	54 19 6
Wheeo to Reid's Flat			1896	81 15 0	81 15 0
Wheeo Post Office to Gunning			1888	1,557 6 3	111 10 3
Wallen's Gap, <i>via</i> Ballalaba, to Oranmer	Maintenance, repair, and construction.	Consoli- dated Revenue.	1875	1,927 1 3	81 10 11
Waroo, <i>via</i> Boombolo, to Cavan Gap			1891	766 7 5	90 14 6
Wyndham to Burrogate			1892	243 10 0	44 18 0
Wellesley's, <i>via</i> Craigie, to the Border			1896	74 7 0	74 7 0
Wilton Post Office to Maldon			"	7 15 0	7 15 0
Wendowie, up east bank Gilmore Creek			1891	668 0 4	83 10 6
Wendowie School, up west bank Gilmore Creek			1894	206 9 8	52 9 0
Wagga Wagga, <i>via</i> Railway Line, to Narrandera Crossing, Cowabee Creek			1896	12 18 7	12 18 7
Wagga Wagga to Gillenbah			1892	2,769 18 2	379 13 6
Wagga Wagga to Gregadoo			1891	1,078 13 0	128 12 5
Wagga Wagga to Gregadoo Road, along west side Lake Albert			1896	35 0 0	35 0 0
Wagga Wagga to Coolamon			1892	871 4 3	102 8 1
Wagga Wagga and Coolamon Road, near Coolamon, to Tooyal			1896	15 16 0	15 16 0
Wagga Wagga to Wantabadgery			1892	963 13 8	199 6 1
Wagga Wagga to Cookardina			"	1,334 19 10	80 10 0
Wagga Wagga, <i>via</i> Sandy Creek, to Rock Station			1893	559 11 8	86 6 2
Wagga Wagga to Kyamba			1881	12,536 17 0	378 15 5
Wagga Wagga to Narrandera			1864	16,377 8 9	149 7 0
Wagga Wagga to Junees			1892	507 12 2	89 9 9
Wagga Wagga-Narrandera Road, at F.R. 1,421 to Devlin's Siding			1896	15 0 0	15 0 0
Wagga Wagga, <i>via</i> Railway Line, to Narrandera			"	108 5 0	108 5 0
Walla Walla to Henty			1895	29 16 0	14 16 0
Widdin Creek to Walla			1894	119 13 9	44 13 9
Whitton Station to Cudgellico			1892	7,141 7 9	624 17 4
Wilgoa to Wandello			1896	40 0 0	40 0 0
Wombat, <i>via</i> Kingsvale, to Young Municipal Boundary			1894	237 12 8	82 10 8
Wombat to Wallendbeen			"	136 13 4	39 4 0
Wallendbeen to Stockinbingal			"	533 18 10	219 18 10
Welaregang to Tintaldra			"	160 13 9	48 0 3
Wentworth to South Australian Border			1885	1,377 13 6	4 0 0
Wentworth to Euston			1896	41 0 9	41 0 9
Wolumla to Yurammie			1895	83 7 0	36 1 0
Wentworth Falls to Burragorang			"	1,428 8 9	591 9 4
Wimbledon to Fitzgerald Valley			1896	35 0 0	35 0 0
Worboys to Spring Terrace			"	67 6 0	67 6 0
West Portland to Comleroy Road			1888	820 5 9	78 1 9
Windsor, <i>via</i> Cornwallis, to Richmond			1896	72 9 10	72 9 10
Windsor to Bull Ridge			1895	305 19 11	169 19 11
Windsor, <i>via</i> Sackville, to Wiseman's Ferry			1883	10,548 12 6	509 4 1
Windsor Road, to Model Farm			1896	22 8 0	22 8 0
Windsor to Blacktown Road			1896	21 14 9	21 14 9
Windsor to North Dural, between Pitt Town and Cattai			1895	111 12 10	8 19 8
Windsor Road to Mulgrave Station			1896	23 5 0	23 5 0
Wiseman's Ferry to Singleton Mill			1889	603 5 1	82 18 8

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When com- menced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
ROADS AND BRIDGES—continued.					
Wiseman's Ferry, through Leet's Vale to Dargle's Farm			1896	£ s. d.	£ s. d.
Windeyer to Queen's Pinch.....			1892	20 7 4	20 7 4
Windeyer to Queen's Pinch, at Campbell's Crossing			1896	898 2 5	164 17 6
Wallerawang to Mudgee			1896	40 1 0	40 1 0
Wallerawang to Rydal			1857	171,880 17 3	904 0 0
Wallerawang to Henderson's Gate			1893	367 7 2	75 7 3
Walli to Woodstock			1896	20 9 8	20 9 8
Woodstock to Canowindra			1888	1,531 17 10	159 13 0
Woodstock to Mt. McDonald			1891	2,390 17 2	472 16 7
Woodstock to Kangaroo Flat			1883	5,975 1 11	314 11 6
Wall's Junction to Botobolar			1896	53 9 3	53 9 3
Wellington to Ulundry			1884	1,665 0 0	81 18 1
Wellington to Woolamon			1894	945 2 6	204 19 10
Wellington to Cobborah			1890	2,155 7 3	291 15 8
Wellington to Cobborah, at Comobella towards Wellington			1882	6,264 14 6	663 6 1
Wellington to Mumbil and Burrendong Road			1895	40 0 0	40 0 0
Wilcannia to Ivanhoe			1880	5,774 13 11	54 8 0
Wilcannia to Wentworth			1892	2,049 18 0	208 15 9
Wilcannia to Wompah			1888	2,785 3 5	275 4 10
Wilcannia to Wompah (Coally Flat Embankment)			1892	2,917 5 7	573 15 6
Wilcannia to Cockburn			1896	190 18 0	190 18 0
Wilcannia to Bourke—Repairs to Crossings			1890	3,280 4 10	223 4 0
Western Road—Main			1896	14 6 0	14 6 0
Wellington to Ponto			1857	618,043 15 9	9,630 11 8
Wilberforce to Pitt Town			1891	1,534 2 5	252 3 9
Wellington to Goolma			1895	104 5 6	83 15 3
Wilcannia to Wansaring			"	1,018 7 5	544 16 2
Wall's to Bowning			"	104 5 0	29 0 3
Warne to Mumble			"	34 4 6	17 17 0
Warne Road to Kerr's Creek			"	121 12 10	80 0 0
Wilberforce to Argyle Reach			1896	55 19 0	55 19 0
Wybong to Brogheda Road			1895	100 0 0	50 0 0
Wallerobba to Brookfield and Branch, via German Bridge to Clarence- town and Dungog Road			1896	34 17 9	34 17 9
Wallerobba and Dungog Road to Cox's Creek			"	120 0 0	120 0 0
Webber's Creek to Paterson and Maitland Road			"	27 0 0	27 0 0
West Maitland up right bank Hunter River (Oakhampton Road)			"	30 0 0	30 0 0
West Maitland, via Glenarvon to East Maitland and Paterson Road			"	180 3 8	180 3 8
Woolong to head of Sandy Creek			"	42 0 0	42 0 0
Waddell's Orchard, via White's Falls to Great North Road			"	25 0 0	25 0 0
Woodville Road to Fairfield Station			"	67 0 0	67 0 0
Woolgoolga to the Bay			"	37 15 4	37 15 4
Wahroongah, eastward to Burn's Road			"	248 0 0	248 0 0
Williamstown to Medowie	Maintenance, repair, and construction.	Consoli- dated Revenue.	"	227 10 0	227 10 0
Wollar to Ulan			"	31 0 0	31 0 0
Wollar to Barragan			"	55 7 4	55 7 4
Wallace to Harefield Railway Station			"	38 7 4	38 7 4
Windellama to the Spa and Jessep Mines			"	74 14 5	74 14 5
Wigley's Road from Cobar Road to Wigley's			"	39 11 6	39 11 6
Windsor Road, at Leath's towards Kellyville			"	5 0 0	5 0 0
Windsor Road, at Rous Hill to Rook's Farm			"	10 0 0	10 0 0
Yarrowford to Ranger's Valley			"	10 0 0	10 0 0
Young Wallsend to Minmi			1881	2,365 15 11	40 18 11
Yarraman to Back Creek			1890	2,008 16 1	169 0 8
Yass to Fairfield Bridge			1891	244 13 7	14 16 5
Yass, via Wee Jasper to Tumut			1895	6,134 3 3	230 0 0
Yass, via Jerriwa to Dalton			1892	3,147 1 7	1,490 3 3
Yass to Woolgarlo			1894	528 18 0	105 13 0
Yass to Dalton and Burrowa Road			1875	4,167 3 3	158 17 0
Yass to Black Range			1890	510 11 0	87 8 1
Yass to Wargelia			1885	329 1 4	36 8 0
Yass to Near Gundaroo			1896	78 16 0	78 16 0
Yass to Near Gundaroo Road to Road Murrumbateman to Ginninderra			1882	9,590 1 5	285 1 7
Yass Road to Cullunga			1896	67 19 0	67 19 0
Young to Koorawatha			"	35 8 4	35 8 4
Young, via Moppity to Burrowa and Cunningham Road			1892	335 15 9	87 14 4
Young to Murrumburrah			1880	1,858 11 10	180 8 0
Young to Jerrybang and Bumbaldry			1889	2,118 4 3	84 1 6
Young, via Morangarell to Marsden			1892	600 0 9	156 1 8
Young to Burrowa			1887	6,483 13 4	392 6 7
Young to Temora			1876	13,764 15 5	198 17 4
Young to Grenfell			1883	9,009 6 6	300 0 0
Yambla Station to Jingellie			1888	7 875 18 2	634 13 11
Yerong Station to Urangeline			1892	4,691 13 0	835 10 0
Yerong Creek to Mangoplah			1888	2,874 5 11	354 12 1
Yerong Station to Urangeline, at Young Cemetery to Mittagong			1894	114 5 10	45 0 0
Yarramundi, via Enfield to Wilberforce and Pitt Town Road			1896	22 11 0	22 11 0
Yarramundi to Richmond			1883	2,308 8 2	242 7 11
			1896	71 9 1	71 9 1
STREETS.					
Narrari-street, Bermagui			"		10 0 0
Geddes-street, Warialda			"		12 15 0
Hope-street, Warialda			"		15 0 0
Copeland-street East, Beecroft			"		9 9 0
Helensburgh West—Clearing			"		34 0 0
Myers-street, Wilcannia, in approach to Wilcannia Bridge			"		272 4 0

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When commenced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
STREETS—continued.					
Russart-street, Lyndhurst			1896	£ s. d.	£ s. d.
Maude-street, Barraba				6 6 6	29 0 0
Young-street, Brewarrina				143 9 9	3 19 8
High-street, Lawrence, Clearing				20 3 3	10 11 6
Hillgrove Hospital, Street leading to				75 17 0	400 0 0
Primrose-street, Wingham				300 9 0	58 0 0
Rifle-street, Clarencetown					
Fop-street, Walgett					
Neild-street, Wyalong					
Louise-street, Rylstone					
SUNDRIES.					
Compensation to A. J. Single				400 0 0	419 0 11
Centennial Park Relief Works				3,634 2 0	10,164 12 10
Church and School Lands, Randwick Trust Fund				3,596 5 7	50 0 0
Expenses of Punts				243 19 5	12,396 3 4
Incidental Expenses				43,625 8 0	500 0 0
Lighting Belmore Bridge				126 0 0	61,145 19 1
Gratuity, Retrenched Officers					
Establishment, Salaries					
Salaries, Equipment, and Travelling Allowances					
Compensation to Mrs. J. H. Gordon					
Compensation to Dennis Hall					
Special Grants to Country and Suburban Municipalities (as per Statement.)*					
Clearing Scrub, Rifle Range, Randwick				141 17 9	8 13 4
Bridge Material				3 5 8	17 15 11
Boring Supplies				273 12 7	5 1 4
Boiler and Steam Winch—Repairs				31 5 6	1,000 0 0
Bridge Store Account					
Testing Timber Joints					
Weathering Gear for Bridges					
Purchase of Metal from Railway Commissioners					
AMOUNTS issued to Municipalities for Maintenance of MINOR ROADS within their Limits.					
As per Statement *				7,926 13 1	44 0 0
Armidale Council				22 0 0	38 0 0
Ballina				43 10 0	38 10 0
Cobar				20 0 0	34 10 0
Cabramatta and Canley Vale				30 10 0	15 0 0
Deniliquin				16 5 0	3 0 0
Liverpool				1,768 14 5	
Morpeth					
Moama					
Penrith					
St. Mary's					
Wentworth					
Work done for other Departments					
PUNTS.					
Ryde Punt—Approaches				17 17 6	119 14 6
Macksville Punt and Approaches				2 13 2	323 12 9
Boat at Mookerawa Creek, Macquarie River				71 15 0	3 0 0
Punt, Hawkesbury River, at Windsor				3 0 0	8 8 0
Teven Ferry—Approaches				1 1 0	12 9 6
Port Hacking Punt—Repairs				16 16 0	1 12 2
Murwillumbah—New Punt				385 17 2	768 10 1
Boat at Keepit				87 8 0	146 5 0
George's River Ferry—Approaches				98 0 3	
Byrnes' Point Ferry—Waiting-shed					
Tynedale Punt—Approaches					
Wyong Ferry—Approaches					
Tinonee Punt—Approaches					
Raymond Terrace Ferry—Approaches, Miller's Forest Side					
" " Fresh Water Supply					
Ferry-house, Raymond Terrace—Alterations					
Slip and Shed, Woodburn Punt					
CAUSEWAYS.					
Baerami Creek—Causeway				25 12 0	59 19 0
Mulga Creek, Byrock to Bourke-Cobar Road				19 19 0	73 19 3
Causeway, Wallamanjara towards Warrangong				64 2 6	35 6 0
Causeway, Kean's Gully, Main South Road					
Causeway, McLaughlin's Creek, at Sutton					
Boggabri in Approach					
CULVERTS.					
Culvert, Alcorn's Creek				80 3 0	200 0 0
" Bragoot Lake Crossing, Bega to Bermagui				44 0 0	25 0 0
" Brady's Cowal Metalling Approaches				25 0 0	25 0 0
" Blacktown Road				146 16 10	24 5 0
" Berrigan Creek, Shands to Berrigan				81 19 2	
" Botany Road, Waterloo					
" Hamilton's, Main South Coast Road					
" Hinton, Mount Kanwary, on road					

* Statement herewith.

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When com- menced.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
CULVERTS—continued.					
Culvert in Lane, near Trangie Railway Station			1896	£ s. d.	£ s. d.
" Llandilo to Blacktown, on road .....			"	.....	123 18 0
" Middle Creek, Cannonbar to Pine Range .....			"	.....	4 12 0
" Morpeth, on railway line .....			"	.....	212 16 6
" near Aberfoil, Road Guyra to Oban .....			"	.....	31 2 6
" near Kingswood, Main West Road .....			"	.....	41 19 4
" North Creek, Braidwood to Nerriga .....			"	.....	116 14 7
" on road, Tenterfield, via Griffith's and Rigney's farms towards the Mole .....			"	.....	50 0 0
" over Cowal, at Gordie's Gate, Grangee to Collie .....			"	.....	44 19 0
" on road, Milson's Point, via Lane Cove to Peat's Ferry .....			"	.....	74 19 0
" Payling Yard Creek .....			"	.....	5 2 0
" Sheep Station Creek, Cootamundra to Gundagai .....			"	.....	47 2 0
" Hutching's Gully .....			"	.....	30 0 0
" Hinton to Mount Kanwary .....			"	.....	118 18 4
" Slaughter House Creek .....			"	.....	81 19 2
			"	.....	28 0 0
FOOTBRIDGES.					
Footbridge, Burrangong Creek .....			"	.....	44 0 0
" Karuah River, Gorton's Crossing .....			"	.....	14 10 0
" Jembaicumbene Creek .....			"	.....	71 4 5
" Back Creek .....			"	.....	20 0 0
" Yetman .....			"	.....	84 5 8
" Lett's Creek, Hartley Vale to Lithgow .....			"	.....	101 13 3
" Rocky River, Glen Elgin .....			"	.....	17 6 0
" Bega River, Auckland .....			"	.....	96 9 0
" Bargo River .....			"	.....	25 0 0
" Meadow Creek .....			"	.....	10 0 0
" Quirindi Creek, at Wallabadah .....			"	.....	63 11 6
CONSTRUCTION AND REPAIR OF BRIDGES.					
Albury .....			"	.....	339 14 11
Armidale .....			"	.....	408 6 7
Bourke .....			"	.....	639 9 0
Blayney .....			"	.....	44 4 4
Bega .....			"	.....	235 13 4
Ballina .....			"	.....	5 0 0
Bombala .....			"	.....	69 18 11
Braidwood .....			"	.....	23 15 0
Bathurst .....			"	.....	291 10 1
Bellingen .....			"	.....	33 15 9
Campbelltown .....			"	.....	38 0 0
Cowra .....			"	.....	247 14 3
Casino	Maintenance, repair, and construction.	Consoli- dated Revenue.	"	.....	392 15 1
Crookwell .....			"	.....	30 11 5
Cootamundra .....			"	.....	494 19 10
Cooma .....			"	.....	35 10 0
Dubbo .....			"	.....	271 10 8
Deniliquin .....			"	.....	118 7 5
Forbes .....			"	.....	911 6 8
Grafton .....			"	.....	80 19 4
Gosford .....			"	.....	30 8 1
Goulburn .....			"	.....	120 12 11
Glen Innes .....			"	.....	140 5 2
Hay .....			"	.....	383 5 0
Inverell .....			"	.....	9 7 2
Kiama .....			"	.....	741 11 5
Kempsey .....			"	.....	505 4 4
Lismore .....			"	.....	273 14 11
Maclean .....			"	.....	68 18 8
Murwillumbah .....			"	.....	330 0 1
Maitland .....			"	.....	1,127 15 6
Muswellbrook .....			"	.....	202 10 10
Moree .....			"	.....	363 1 4
Mudgee .....			"	.....	79 1 2
Moss Vale .....			"	.....	195 1 3
Metropolitan .....			"	.....	526 11 4
Narrabri .....			"	.....	182 5 6
Newcastle .....			"	.....	201 12 5
Orange .....			"	.....	506 1 1
Parramatta .....			"	.....	213 16 9
Port Macquarie .....			"	.....	336 4 5
Queanbeyan .....			"	.....	289 18 0
Quirindi .....			"	.....	415 8 6
Richmond .....			"	.....	401 19 0
Stroud .....			"	.....	420 18 7
Tumut .....			"	.....	280 1 5
Taree .....			"	.....	182 12 8
Tamworth .....			"	.....	613 4 2
Tenterfield .....			"	.....	124 11 11
Tumbarumba .....			"	.....	19 8 3
Wollombi .....			"	.....	86 1 10
Walgett .....			"	.....	517 10 1
Wyallda .....			"	.....	95 3 6
Wagga Wagga .....			"	.....	145 16 10
Yass .....			"	.....	288 2 5
Young .....			"	.....	384 1 2

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When com- menced.	If Finished, actual amount of Expenditure.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
BRIDGES—continued.				£ s. d.	£ s. d.	£ s. d.
Bridge, Aston's Creek, Delegate to Bombala			1896	163 9 9	.....	163 9 9
Brusby Creek			"	52 10 0	.....	52 10 0
Broken Back Creek, Congarini to Port Macquarie...			"	168 1 9	.....	168 1 9
Black and Deep Creeks, Cessnock to Allandale ..			"	511 13 4	.....	511 13 4
Bega River, at Bega—Repairs			"	156 7 3	.....	156 7 3
Black Gully Creek, Moree, <i>via</i> Goonal to Mogil Mogil			"	325 10 9	.....	325 10 9
Broadwater			1895	853 3 2	.....	742 19 10
Baronne Creek, Coonamble to Gilgandra			"	244 17 8	.....	172 17 8
Bril Bril Creek, Ennis to Glen Esk, Upper Plains ..			1896	249 2 0	.....	249 2 0
Brown's Creek, Carcoar to Milthorpe and Cadia ...			"	193 6 2	.....	193 6 2
Beckett's Creek and Approach			1895	151 2 5	.....	147 14 8
Brian's Bridge over Cuddie's Creek			1896	274 6 7	.....	274 6 7
Black Bob's Creek			1895	541 17 2	.....	331 12 8
Belford Creek			"	225 2 0	.....	30 2 0
Brewer's Creek, Wilcannia to Wentworth Falls ...			1896	162 0 0	.....	162 0 0
Belongil Creek			1895	144 0 0	.....	109 0 0
Black Creek, Tenterfield to Tabulam			"	649 0 1	.....	537 11 1
Boomerang Creek			"	118 11 5	.....	68 17 5
Cattai or Murphy's Creek, Rous Hill to Dural			1896	458 2 1	.....	458 2 1
Carore Creek			1895	695 3 3	.....	560 18 3
Cattai Creek, McGrath's Hill to Maroota			1896	653 7 7	.....	653 7 7
Croaker's Waterholes, Dunmore to Clarencetown...			"	255 16 11	.....	255 16 11
Chittaway			1895	147 11 0	.....	147 11 0
Curban Creek			"	78 12 2	.....	50 12 2
Catherine Hill Bay			1896	269 8 8	.....	269 8 8
Cuttaburra Creek			1894	4,723 12 7	.....	963 8 5
Cooper's Creek, Bega to Bembooka			1895	636 0 6	.....	351 1 6
Cooper's Creek, Clunes to Staggs			1896	33 0 0	.....	33 0 0
Cowra—Maintenance			1895	172 10 4	.....	118 5 4
Cungegong Creek			"	186 10 4	.....	133 4 4
Cudgegong Creek			"	1,073 9 9	.....	673 17 8
Charity Creek, Tarce			"	887 4 10	.....	730 4 10
Cedar Party Creek, at Barnes' Crossing			"	1,565 14 3	.....	1,466 14 3
Cedar Creek, Thirlmere to Lakesland			1896	154 17 6	.....	154 17 6
Cabramatta Creek			1895	278 17 0	.....	220 5 0
Dingo Creek, at Rocky Crossing			1896	547 9 7	.....	547 9 7
Double Creek, Main South Coast Road			1895	1,547 14 7	.....	302 12 8
Duren's Creek, Gosford to Cooranbong			1896	262 10 3	.....	262 10 3
Dootor's Creek			1895	548 3 1	.....	546 18 1
Eleven-mile Creek, Tenterfield to Ballina			1896	308 8 6	.....	308 8 6
Flat Rock Gully			1895	256 9 8	.....	158 9 8
Fox under the Hill			"	151 2 7	.....	151 0 5
Gullies in Hoile's portion 1 and 2, Colo River			1896	397 1 4	.....	397 1 4
Gundry Creek, near Goulburn			"	598 12 1	.....	598 12 1
Guilfoyle's Creek			"	141 5 3	.....	141 5 3
Hyndman's Creek			1895	418 15 9	.....	353 15 9
Hay, Footway			1896	10 16 0	.....	10 16 0
Herriott's Creek			1895	625 18 4	.....	580 13 9
Ironworks Creek, Great South Road			1896	311 12 4	.....	311 12 4
Jerrabat Gulla			1895	548 19 0	.....	348 2 8
Korea Creek, Main South Coast Road			1896	257 4 5	.....	257 4 5
Kangaroo River, Old Bridge			"	20 16 10	.....	20 16 10
Kelaher's Creek, Walgett to Pian Creek			"	194 8 2	.....	194 8 2
Laing's Creek			"	219 9 9	.....	219 9 9
Lachlan River, at Narrawa			"	1,531 10 6	.....	1,531 10 6
Lamb's Creek			1895	284 12 3	.....	23 17 6
Little Dark Creek, Newcastle to Minmi			1896	142 18 8	.....	142 18 8
Lachlan River, at Inglewood			"	997 5 2	.....	997 5 2
Mann River			"	1,567 5 0	.....	1,567 5 0
Moore's Creek			"	330 0 0	.....	330 0 0
Muckerawa Creek			"	355 12 2	.....	355 12 2
Myrtle Creek, Casino to Lawrence			"	1,194 10 7	.....	1,194 10 7
Mooki River, Walhallow			"	586 11 3	.....	442 11 3
Mattaganah Creek			1895	1,145 8 7	.....	849 12 7
McLeod's Creek, Murwillumbah to Cudgen			1896	198 19 4	.....	198 19 4
Mehi River			1895	907 13 1	.....	893 10 1
Marone Creek, Tacki to Rous			1896	331 11 2	.....	331 11 2
Middle Arm			"	80 0 0	.....	80 0 0
Moule's Main Flat			"	238 13 9	.....	238 13 9
Nunnock Creek			"	901 9 8	.....	901 9 8
Nepean River, at Menangle			"	18 13 0	.....	18 13 0
Narrawalla			1895	447 2 1	.....	390 8 1
Nowra—Repairs			1896	147 11 6	.....	147 11 6
Norths			"	82 17 4	.....	82 17 4
Old Walgett—Repairs			1895	32 0 0	.....	13 0 0
Old Man Creek, Wagga to Gillenbah			"	471 4 0	.....	60 4 0
Orara River, near Keranghi			"	604 17 11	.....	85 14 3
Orara River, at Coutts' Crossing			1896	29 0 0	.....	29 0 0
Oakey Creek, Chandler's Bridge to Kempsey			"	39 10 0	.....	39 10 0
Oolong Creek, Dalton			1895	621 2 10	.....	271 2 10
Pitt Town, No. 1			1896	282 1 4	.....	282 1 4
Pearce's Creek			1895	265 17 6	.....	247 5 6

Maintenance,
repair,
and
construc-
tion.

Consoli-
dated
Revenue.

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed	When com- menced.	If Finished, actual amount of Expenditure.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
BRIDGES—continued.				£ s. d.	£ s. d.	£ s. d.
Bridge, Pambula River, at Pambula.....			1896	332 12 0	.....	332 12 0
" Pelican Creek, Coraki to Wyrallah.....			"	14 10 0	.....	14 10 0
" Roberts' or Boggy Creek			"	146 6 8	.....	146 6 8
" Rhones' Creek			1895	408 15 6	.....	66 13 6
" Ropes' Creek			1896	429 10 4	.....	429 10 4
" Snake's Creek, Tenterfield to Ballina			"	416 1 10	.....	416 1 10
" Sandy Creek, Cooranbong to Newport			"	484 17 10	.....	484 17 10
" Sandy Creek, Tumut to Adelong.....			"	235 7 9	.....	235 7 9
" Sugarloaf Creek, Wollombi to Yango.....			"	203 4 3	.....	203 4 3
" Saucy Creek, Bombala to Delegate			"	803 10 8	.....	803 10 8
" Saltwater Creek, Mullimbimby to Byron Bay			1895	305 6 6	.....	54 13 10
" Spickett's Creek.....			1896	142 6 4	.....	46 6 4
" Southgate			1895	489 4 1	.....	477 10 1
" Tyndall's Gully, Great West Road.....			1896	108 10 0	.....	108 10 0
" Tyndall's Gully, No. 3			"	418 12 8	.....	418 12 8
" Thalaba Creek			"	674 15 5	.....	674 15 5
" Taylor's Creek			1895	410 18 11	.....	181 18 11
" Tucki Creek, Tucki to Rous.....			1896	223 3 7	.....	223 3 7
" Two-mile Creek, at Bigga.....			"	210 19 3	.....	210 19 3
" Vogt's Gully, Kellosiel to Little Forest			"	112 2 2	.....	112 2 2
" Wilber Creek			"	208 5 4	.....	208 5 4
" Wongewomble Creek.....			"	154 18 5	.....	154 18 5
" Warung Creek, at Home Valley			"	58 15 0	.....	58 15 0
" Wakool			1895	482 5 2	.....	379 10 2
" Woolway Creek, Cooma to Buckley's Crossing ..			1896	1,338 5 1	.....	1,338 5 1
" Whiskin's Gully			1895	175 4 8	.....	174 8 8
" Wyong Creek, Gosford to Cooranbong			1896	1,387 15 10	.....	1,387 15 10
" Wickham and Approach			1894	392 7 2	.....	59 14 6
" Windsor—Repairs.....			"	2,189 3 3	.....	1,091 17 7
" Yardley's Creek, Kangaroo Valley to Nowra			1896	137 14 2	.....	137 14 2
" Apsley River, Fitzroy-street, Walcha.....			"		98 9 11	98 9 11
" Adelong, Lithgow			"		1 2 6	1 2 9
" Abercrombie			"		134 18 2	134 18 2
" Barwon, Brewarrina—Repairs			1892	.....	1,309 10 3	581 8 11
" Baker's Creek, Limeburner's Creek to Krambach...			1896	.....	128 3 0	128 3 0
" Balranald			1893	.....	1,398 10 6	487 8 4
" Barnes' Gully.....			1896	.....	0 4 0	0 4 0
" Bundarra			1895	.....	426 1 11	292 11 11
" Beardy River, Glen Innes to Red Range			1896	.....	364 11 0	364 11 0
" Berrima River, Wingecarribee			"		1,187 14 2	1,187 14 2
" Borambil Creek, Muswellbrook			"		45 19 0	45 19 0
" Borambil Creek, Quirindi			"		47 19 6	47 19 6
" Ballacodyn Creek			"		127 10 0	127 10 0
" Belabula River, Carcoar			1895	.....	756 6 5	525 3 1
" Beardy River, West Approach			1896	.....	60 0 0	60 0 0
" Barrington			1895	.....	3 8 9	0 5 0
" Collarendabri			"		22 19 4	12 1 0
" Camden Haven			1896	.....	139 8 10	139 8 10
" Cato Creek			"		306 10 4	306 10 4
" Carr's Gully			"		93 1 0	93 1 0
" Cosgrove Creek			1895	.....	150 9 9	2 11 0
" Coopernook—Maintenance			"		288 1 7	196 1 9
" Campbell River—Approach.....			"		195 0 8	93 13 0
" Dingo Creek, at Tetsell's			"		163 0 5	48 3 3
" Dunmore.....			1896	.....	59 7 10	59 7 10
" Deniliquin			"		2 16 0	2 16 0
" Dalgetty			"		2 12 0	2 12 0
" Erina Creek—Repairs			1892	.....	460 12 5	52 11 8
" Flanagan's Creek, Main South Coast Road			1896	.....	111 10 4	111 10 4
" Farmer's Creek, Lithgow.....			1895	.....	211 17 6	157 7 6
" Fitzroy, Windsor			1896	.....	17 12 7	17 12 7
" Grattai Creek—Approach compensation			"		10 17 6	10 17 6
" Gundagai			1895	.....	55 1 9	3 1 9
" Glebe Island—Repairs			1896	.....	450 1 3	450 1 3
" Gum Creek, Hay to Darlington Point			"		9 13 0	9 13 0
" Governor's Hill, Goulburn—Repairs			"		4 1 10	4 1 10
" Hammer's Creek			1895	.....	454 11 6	453 9 8
" Hampden River, Wagga—Approach			1896	.....	130 0 0	130 0 0
" Hay—Repairs			1891	.....	2,361 2 0	114 0 0
" Howlong			1896	.....	197 7 3	197 7 3
" Hawksview—Repairs			1895	.....	18 10 8	15 19 11
" Iron Cove—Repairs			"		103 18 3	55 15 4
" Inverell			"		18 8 9	8 4 0
" Irving, Casino			1896	.....	62 4 11	62 4 11
" Jones			"		52 0 0	52 0 0
" Kingswood			"		31 1 2	31 1 2
" Limestone Creek			"		33 4 10	33 4 10
" Lane Cove and Parramatta—Repairs.....			1895	.....	1,859 4 0	1 5 9
" Little Hartley Creek, Great West Road			1896	.....	324 15 7	324 15 7
" Lanes			"		35 2 2	35 2 2
" Little Malabah			"		122 7 4	122 7 4
" Mulwala			1894	.....	84 6 7	21 18 7
" Marengo Creek			1895	.....	468 8 5	8 2 10

Maintenance,
repair,
and
construc-
tion.

Consoli-
dated
Revenue.

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com- menced.	If Finished, actual amount of Expenditure.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
BRIDGES—continued.				£ s. d.	£ s. d.	£ s. d.
Bridge, MacDonal River, 1 and 2			1896	.....	114 2 6	114 2 6
Macquarie River .....			"	.....	86 6 0	86 6 0
Mountain Creek .....			"	.....	163 2 0	163 2 0
Muscle Creek, Great North Road .....			"	.....	246 8 0	246 8 0
Moruya Borings.....			"	.....	0 2 7	0 2 7
on Main South Coast Road .....			"	.....	103 15 11	103 15 11
Murray River, Mulwala (Approach) .....			"	.....	122 2 6	122 2 6
North Bourke.....			"	.....	105 7 7	105 7 7
Nimboy River.....			"	.....	148 7 3	148 7 3
Noyeau River .....			"	.....	153 0 8	153 0 8
Nepean River, Penrith—Repairs.....			"	.....	12 14 2	12 14 2
Oyster Lake			1895	.....	705 0 6	6 13 2
Oakey Creek, Narrabri to Pilliga .....			"	.....	482 8 0	10 8 0
opposite Sea wall, Coogee Bay—Repairs			1896	.....	17 12 2	17 12 2
Old Inverell—Repairs .....			"	.....	38 0 0	38 0 0
Pymont—Repairs.....			"	.....	1,276 3 9	1,276 3 9
Paynes .....			"	.....	31 5 10	31 5 10
Parramatta—Repairs .....			"	.....	550 14 5	550 14 5
Paterson River, at Vacey .....			"	.....	10 8 0	10 8 0
Parramatta River, at Rydalmere (Borings) .....			"	.....	29 13 1	29 13 1
Peterkin's Creek.....			1895	.....	167 9 3	48 12 0
Pitnacree .....			"	.....	70 0 0	42 0 0
Paterson River, at Hinton			1896	.....	9 17 8	9 17 8
Price's, Main South Coast Road .....			"	.....	58 14 5	58 14 5
Reedy Creek, Great North Road.....			"	.....	66 4 0	66 4 0
Rankin's, Bathurst—Repairs .....			"	.....	422 2 8	422 2 8
Swansea .....			"	.....	56 16 7	56 16 7
Smith's Creek.....			"	.....	239 3 4	239 3 4
Six-mile Creek .....			"	.....	5 19 0	5 19 0
Saltwater Creek, Wilson's River, <i>via</i> Bar Scrub to Walcha .....			"	.....	539 0 0	539 0 0
South Creek .....			"	.....	391 3 9	391 3 9
Singleton—Repairs .....			"	.....	10 13 11	10 13 11
Toocumwal .....			"	.....	27 5 4	27 5 4
Tamworth—Repairs .....			"	.....	5 14 5	5 14 5
Tumbledown Creek—Land compensation .....			"	.....	18 11 7	18 11 7
Tom Thumb Lagoon .....			"	.....	7 13 3	7 13 3
Timber for bridges	Main- tenance, repair, and construc- tion.	Consoli- dated Revenue.	"	.....	2,559 14 3	2,559 14 3
Telegerry Creek .....			"	.....	124 0 0	124 0 0
Tuena—Repairs.....			"	.....	64 18 3	64 18 3
Wentworth—Repairs .....			"	.....	37 17 4	37 17 4
Wilcannia—Maintenance			1895	.....	523 0 5	55 0 4
Waterworks, Botany			1896	.....	0 14 0	0 14 0
Warren, Macquarie River .....			"	.....	36 8 0	36 8 0
Adelong Creek, at Moore's Crossing .....			"	.....	821 19 5	821 19 5
Bogan River, at Monkey			1895	.....	1,173 9 3	949 2 8
Blaxland's Crossing, Nepean River.....			1896	.....	1,332 18 1	1,332 18 1
Cuttaburra Creek (3) .....			"	.....	2,064 13 7	2,064 13 7
Colombo Creek .....			"	.....	576 2 10	576 2 10
Cooradigbee Creek.....			1895	.....	1,624 15 1	599 19 0
Culgoa River, at Weilmoringle			1896	.....	822 4 11	822 4 11
Denison Bridge, Bathurst—Protection of river bank			1895	.....	1,591 0 0	1,175 5 10
Edwards' River, Deniliquin .....			"	.....	3,845 6 2	11 18 2
Ellenborough River .....			"	.....	1,796 4 10	1,660 8 5
Fall's Creek			1896	.....	866 2 8	866 2 8
Fish River, at O'Connell .....			"	.....	1,463 17 11	1,463 17 11
Gobarralong, Murrumbidgee River.....			"	.....	1,877 9 7	1,877 9 7
Giant's Creek.....			"	.....	652 2 11	652 2 11
Marra Creek, near Butterbone, Warren to Mount Harris			1895	.....	1,125 14 9	1,105 11 9
Molonglo River, at Foxlow			1896	.....	1,695 9 8	1,695 9 8
McIntyre River, at Inverell.....			1891	.....	10,354 5 8	884 18 11
Namoi River, at Walgett			1895	.....	3,239 4 0	2,145 19 10
Swan Hill			1892	.....	8,720 3 6	2,498 9 10
Swan Hill—Caretaker's cottage			1896	.....	159 10 0	159 10 0
Seven Hills—No. 1, near Station .....			"	.....	315 4 6	315 4 6
Seven Hills—No. 2, near Station.....			"	.....	215 5 8	215 5 8
Tantawanglo River .....			"	.....	1,240 9 0	1,240 9 0
Tenterfield Creek, Manners-street, Tenterfield .....			"	.....	1,110 12 8	1,110 12 8
Victoria, East Maitland, Wallis Creek			1894	.....	3,915 13 11	438 6 0
Warrambool (3), Walget towards Brewarrina			1896	.....	1,190 11 10	1,190 11 10
Windsor—Raising			1895	.....	2,220 0 0	1,630 10 8
Bargo River, Main South Road			1896	.....	19 5 0	19 5 0
Borow Bridge, Main South Road .....			"	.....	117 7 8	117 7 8
Byron Creek, 'Possum Shoot to Brooklett.....			"	.....	10 8 0	10 8 0
Coalbaggie Creek, Dubbo, Coonamble to Collie .....			"	.....	114 0 0	114 0 0
Deep Creek, Moonee to Congarini .....			"	.....	0 7 6	0 7 6
Dunmore, Paterson River .....			"	.....	81 5 4	81 5 4
Gundagai—Reconstruction .....			"	.....	6,148 0 3	6,148 0 3
Kangaroo River, Moss Vale.....			1895	.....	5,956 5 1	4,966 5 4
Kempsey, Macleay River			1896	.....	0 7 6	0 7 6
Morpeth, Hunter River			1895	.....	3,936 8 6	3,898 19 3
Melville Ford.....			1896	.....	650 15 7	650 15 7

RETURN OF EXPENDITURE ON PUBLIC WORKS—continued.

Work, and where situated.	Whether Constructing or under Repair.	Fund from which the Expense is defrayed.	When Com- menced	If Finished, actual amount of Expenditure.	If Unfinished, amount of Expenditure to 30 June, 1897.	Amount expended from 1 July, 1896, to 30 June, 1897.
BRIDGES—continued.				£ s. d.	£ s. d.	£ s. d.
Bridge, Molongo River, at Burbong.....	Main- tenance, repair, and construc- tion.	Loans and Con- solidated Revenue.	1896	.....	5 4 5	5 4 5
" Narran River at Angledool or Yeramtab.....			"	.....	776 12 9	776 12 9
" Narromine .....			"	.....	27 19 9	27 19 9
" Page's River, near Blandford Station.....			"	.....	151 8 5	151 8 5
" Queanbeyan River, at Queanbeyan.....			"	.....	22 11 11	22 11 11
" Stonequarry Creek, Picton			1891	.....	2,167 12 5	2,061 3 9
" Sandy Creek, Tenterfield to Ball na			1896	.....	398 16 9	398 16 9
" Turon River, at Wallaby Rocks .....			"	.....	3,070 4 8	3,070 4 8
" Tweed River, Murwillumbah .....			"	.....	123 18 0	123 18 0
" Tur ss Estuary, Trunkatabella Bridge .....			"	.....	6 10 0	6 10 0
" Wollindilly, at Rossi's.....			"	.....	1 7 10	1 7 10
" Warrana Creek, Ceonamble to Tunderbrine .....			"	.....	251 2 4	251 2 4
" Wheeney Creek, at Baxland's Ridge.....			"	.....	2 6 10	2 6 10
" Waitton, over Lagoon .....			"	.....	12 2 0	12 2 0
ROADS.						
Road, Albion Park, via Macquarie Pass, to Robertson .....			"	.....	86 9 7	86 9 7
" Fitzroy Falls, via Belmore Falls, to Robertson .....			"	.....	441 5 0	441 5 0
" Grand Arch, Jenolan Caves, Road through.....			1895	.....	2,766 12 7	1,073 12 3
" Main South Road, near Bowral, to Wombeyan Caves			1890	.....	1,920 5 9	120 18 10
" Main West Road, Wood-blocking, between City boundary and Glebe.			1896	.....	2,370 6 9	2,370 6 9
" Re-laying wood-blocks, King-street, Newtown .....			"	.....	3 10 0	3 10 0
Totals.....			.....	107,762 18 8	7,102,688 19 11	676,209 19 2

SUMMARY OF EXPENDITURE FROM 1ST JULY, 1896, TO 30TH JUNE, 1897.

	£	s.	d.
Loans.....	54,261	1	11
Revenue	620,180	2	10
Services for other Departments	1,768	14	5
TOTAL	£676,209	19	2

ROADS AND BRIDGES EXPENDITURE.

Year.	Expenditure by Officers of Department.	Expenditure by Trustees.	Expenditure by Municipalities.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1857	100,000 0 0	.....	.....	100,000 0 0*
1858	46,621 16 10	.....	.....	46,621 16 10
1859	114,585 18 5	.....	.....	114,585 18 5
1860	199,208 6 10	.....	.....	199,208 6 10
1861	85,641 4 0	50,000 0 0	.....	135,641 4 0
1862	154,497 7 4	70,000 0 0	.....	224,497 7 4
1863	185,248 3 11	70,000 0 0	.....	255,248 3 11
1864	123,867 4 0	30,822 0 0	.....	154,689 4 0
1865	109,075 12 8	39,731 0 0	.....	148,806 12 8
1866	147,750 14 6	38,667 0 0	.....	186,417 14 6
1867	140,086 10 4	36,923 0 0	.....	177,009 10 4
1868	152,323 5 0	40,802 0 0	.....	193,125 5 0
1869	141,863 2 4	40,336 0 0	.....	182,199 2 4
1870	182,726 11 0	40,501 0 0	.....	223,227 11 0
1871	144,257 5 6	34,728 0 0	.....	178,985 5 6
1872	247,858 9 0	36,098 0 0	.....	283,956 9 0
1873	257,366 5 8	41,524 0 0	.....	298,890 5 8
1874	356,002 10 0	45,504 0 0	.....	401,506 10 0
1875	366,802 14 0	37,153 0 0	.....	403,955 14 0
1876	413,625 4 8	51,550 0 0	.....	465,175 4 8
1877	497,032 17 5	24,280 0 0	.....	521,312 17 5
1878	649,773 11 5	25,428 0 0	.....	675,201 11 5
1879	614,708 11 3	28,800 0 0	.....	643,508 11 3
1880	484,567 2 8	23,186 0 0	.....	507,753 2 8
1881	577,212 4 1	24,722 0 0	.....	601,934 4 1
1882	613,847 1 6	24,938 0 0	.....	638,785 1 6
1883	750,584 1 10	27,722 0 0	.....	778,306 1 10
1884	800,962 5 11	24,404 0 0	.....	825,366 5 11
1885	628,379 4 5	28,414 0 4	.....	656,793 4 9
1886	721,993 16 6	45,433 1 3	.....	767,426 17 9
1887	663,928 14 10	31,503 0 0	.....	695,431 14 10
1888	632,397 10 11	31,361 0 0	.....	663,758 10 11
1889	770,808 18 10	34,500 0 0	.....	805,308 18 10
1890	965,687 14 11	31,990 0 0	.....	997,677 14 11
1891	859,027 13 11	30,605 0 0	.....	889,632 13 11
1892	676,233 1 8	30,330 0 0	.....	706,563 1 8
1893	800,620 2 9	30,034 0 0	.....	830,654 2 9
1894 to 30th June, 1895 (18 months)	729,544 15 10	19,285 0 0	27,570 11 11	776,400 7 9
1895-6	588,910 7 1	9,910 1 10	77,389 10 3	676,209 19 2
1896-7 .....	.....	.....	.....	.....
Grand total.....	16,695,628 3 9	1,231,244 3 5	104,960 2 2	18,031,832 9 4

* Approximate.

STATEMENT of Loans and Revenue Expenditure from year 1888.

Year.	Loans.	Revenue.	Services for other Departments.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1888	8,656 4 10	686,775 10 0	.....	695,431 14 10
1889	5,597 9 11	658,161 1 0	.....	663,758 10 11
1890	21,970 10 10	783,338 8 0	.....	805,308 18 10
1891	67,349 4 11	930,328 10 0	.....	997,677 14 11
1892	82,327 5 8	807,305 8 3	.....	889,632 13 11
1893	56,266 19 9	650,296 1 11	.....	706,563 1 8
1894 to 30th June, 1895 (18 months)	33,061 13 3	797,592 9 6	.....	830,654 2 9
1895-6	38,575 9 2	737,824 18 7	.....	776,400 7 9
1896-7	54,261 1 11	620,180 2 10	1,768 14 5	676,209 19 2
.....	368,066 0 3	6,671,802 10 1	1,768 14 5	7,041,637 4 9

ACCOUNTS BRANCH.

RETURN of Expenditure on Municipal Roads, and of Special Subsidies granted to Municipalities.

Municipality.	Main and other Roads.	Extension of Minor Roads.	Unclassified Roads.	Special Subsidy— ss. in £ on General Rates.	Totals.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Armidale	42 10 0	46 0 0			88 10 0
Annandale				607 15 6	607 15 6
Ashfield				1,691 15 0	1,691 15 0
Albury		47 0 0		480 0 0	527 0 0
Alexandria				719 2 6	719 2 6
Auburn				330 10 6	330 10 6
Adamstown		7 0 0		92 15 3	99 15 3
Aberdeen	24 16 6	13 0 0		76 1 9	113 18 3
Burwood				910 17 0	910 17 0
Bankstown				77 8 6	77 8 6
Bathurst		35 0 0		641 3 6	677 3 6
Balmain				2,428 15 9	2,428 15 9
Blayney	50 18 4	66 0 0		104 0 0	220 18 4
Botany North				208 18 6	208 18 6
Berry		31 0 0		221 7 0	252 7 0
Broughton Vale				41 7 6	41 7 6
Balranald		15 0 0		74 0 0	89 0 0
Ballina	101 1 6	148 0 0		85 14 9	334 16 3
Bourko		18 0 0		338 1 6	356 1 6
Broken Hill				1,420 15 0	1,420 15 0
Bingera				48 12 0	48 12 0
Burrowa		38 0 0		90 14 3	128 14 3
Bega	33 0 10	66 0 0	10 0 0	173 12 6	282 13 4
Bowral		60 0 0		200 18 9	260 18 9
Braidwood		70 15 10		118 16 10	189 12 8
Bombala		37 0 0		54 13 0	91 13 0
Botany				212 6 3	212 6 3
Camden		90 0 0	9 0 0	115 0 0	214 0 0
Castlereagh		236 0 0	75 0 0	30 13 3	341 13 3
Cudgegong	136 18 8	500 0 0		182 11 6	819 10 2
Concord				299 14 0	299 14 0
Cooma	50 9 2	228 0 0		107 5 6	385 14 8
Carcoar				33 1 0	33 1 0
Campbelltown		63 0 0		81 13 3	144 13 3
Canterbury	240 0 0			261 12 3	501 12 3
Camperdown				500 11 6	500 11 6
Casino	182 0 10	269 0 0		111 18 9	562 19 7
Cobar		35 0 0		127 3 0	162 3 0
Coonamble		52 0 0		139 12 5	191 12 5
Cowra	56 1 2	116 0 0		198 9 3	370 10 5
Condobolin		100 0 0		83 1 0	183 1 0
Cootamundra		40 0 0		251 12 6	291 12 6
Coraki		46 0 0		53 8 6	99 3 6
Cabramatta and Canley Vale	39 0 0	28 0 0		60 1 0	127 1 0
Carrington				219 10 9	219 10 9
Cudal		93 0 0		41 1 6	134 1 6
Dubbo	7 15 1	26 0 0		281 13 6	315 8 7
Drummoyne				298 6 0	298 6 0
Darlington				291 8 9	291 8 9
Dundas	86 13 4			95 10 9	182 4 1
Deniliquin		140 0 0		225 6 6	365 6 6
Dungog		82 19 6		74 6 3	157 5 9
Enfield				200 5 9	200 5 9
Erskineville				435 7 6	435 7 6
Ermington and Rydalmere				67 7 6	67 7 6
Forbes	175 0 0	140 0 0		272 15 3	587 15 3
Fairfield and Smithfield				99 13 0	99 13 0
Five Dock				88 6 6	88 6 6
Glen Innes	346 19 1	55 0 0	60 0 0	240 17 3	702 16 4
Glebe				1,913 7 3	1,913 7 3
Goulburn	125 15 0	70 0 0		786 18 0	982 13 0
Grafton	62 8 7	68 0 0		414 2 0	544 10 7
Grenfell	10 0 0	13 0 0		76 15 0	99 15 0
Gerrigong	280 18 4			120 6 6	401 4 10
Gulgong		274 12 6		111 4 9	385 17 3
Granville	41 13 4	43 0 0		597 3 3	681 16 7
Gunnedah		30 0 0		155 18 3	185 18 3
Greta	49 13 2	12 0 0		88 19 0	150 12 2
Gosford		65 0 0		41 16 6	106 16 6
Hurstville	437 10 0			485 16 6	923 6 6
Hunter's Hill				361 9 7	361 9 7
Hillston		52 0 0		62 11 0	114 11 0
Hamilton				393 7 0	393 7 0
Hay		44 0 0		292 14 3	336 14 3
Hill End		14 8 3		34 8 0	48 16 3
Inverell		367 2 6		219 2 6	586 5 0
Illawarra North		17 0 0		139 11 9	156 11 9
Illawarra Central				342 2 9	342 2 9
Jerilderie		113 14 6		96 12 0	210 6 6
Junee		30 0 0		256 3 6	286 3 6
Jamberoo		213 0 0	113 0 0	179 15 0	505 15 0
Katoomba	88 0 8		211 19 4	148 5 6	448 5 6
Kiama				149 14 6	149 14 6
Kogarah	208 6 8			450 7 9	658 14 5
Kempsey		153 0 0		129 5 0	282 5 0
Liverpool		17 0 0	10 0 0	222 6 6	249 6 6
Lane Cove				261 11 0	261 11 0
Lithgow		109 0 0		246 15 6	355 15 6

RETURN of Expenditure on Municipal Roads—continued.

Municipality.	Main and other Roads.	Extension of Minor Roads.	Unclassified Roads.	Special Subsidy— ss. in £ on General Rates.	Totals.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Lismore	163 2 1	385 0 0		229 11 6	777 13 7
Leichhardt	35 0 0			1,138 4 0	1,173 4 0
Lambton		10 0 0		72 4 3	82 4 3
Lambton, New		25 0 0		84 3 9	109 3 9
Muswellbrook	29 15 10	10 0 0		153 15 3	193 11 1
Marsfield				61 14 0	61 14 0
Morpeth	212 5 5	30 0 0		102 12 0	344 17 5
Maitland East	219 13 6	83 0 0		216 1 0	518 14 6
Maitland West	298 1 1	45 0 0		846 9 0	1,189 10 1
Mittagong	43 14 10	47 0 0		88 8 6	179 3 4
Molong	86 11 5	60 0 0		77 13 0	224 4 5
Mudgee	21 8 0	9 0 0		145 7 9	175 15 9
Marrickville	195 0 0			1,768 16 3	1,963 16 3
Manly				678 17 6	678 17 6
Maclean		70 0 0		87 9 0	157 9 0
Moruya		13 0 0		63 13 0	76 13 0
Moree		38 0 0		118 2 3	156 2 3
Murrumburrah		35 0 0		77 18 9	112 18 9
Moss Vale		295 0 0		124 5 6	419 5 6
Mcama		40 0 0		85 16 0	125 16 0
Murrumbundi	38 6 8			55 12 6	93 19 2
Merewether		8 0 0		209 2 9	217 2 9
Molgoa				56 9 0	56 9 0
Mosman				450 9 9	450 9 9
Nowra	139 12 4	78 0 0		163 19 0	381 11 4
Newcastle				1,652 6 5	1,652 6 5
North Sydney	88 0 10		141 11 9	2,709 8 5	2,939 1 0
Newtown				2,047 11 0	2,047 11 0
Narrandera		8 0 0		208 19 3	216 19 3
Narrabri		20 0 0		122 13 9	142 13 9
Narrabri West				31 2 6	31 2 6
Nyngan				116 2 6	116 2 6
Orange East	20 19 2	17 0 0		130 0 6	167 19 8
Orange	25 19 9	28 0 0		292 16 2	346 15 11
Penrith	40 13 3			196 7 6	237 0 9
Pieton		25 0 0		117 14 3	142 14 3
Prospect and Sherwood				253 16 9	253 16 9
Parramatta		35 0 0		788 1 9	823 1 9
Port Macquarie		85 0 0		57 12 6	142 12 6
Parkes				166 9 0	166 9 0
Plattsburg		35 0 0		218 1 0	253 1 0
Paddington				2,276 19 0	2,276 19 0
Petersham				1,433 5 0	1,433 5 0
Peak Hill		76 0 0		36 17 3	112 17 3
Queanbeyan	58 17 6	27 0 0		72 16 0	158 13 6
Quirindi		43 0 0		104 11 6	147 11 6
Rockdale	104 3 4			690 8 9	794 12 1
Ryde	77 0 0		98 0 0	368 0 3	543 0 3
Redfern	50 0 0			2,040 11 10	2,090 11 10
Richmond		10 0 0		102 3 3	112 3 3
Raymond Terrace		32 0 0		60 6 3	92 6 3
Rookwood			185 19 4	241 16 9	427 16 1
Randwick	1,225 0 0			1,348 19 0	2,573 19 0
Singleton South	7 18 4	8 0 0		51 18 3	67 16 7
Singleton	23 4 10	7 0 0		184 2 6	214 7 4
St. Peters				436 14 6	436 14 6
Scone	17 9 7	12 0 0		58 11 0	88 0 7
Strathfield				474 14 3	474 14 3
Shellharbour	133 16 6			154 12 6	288 9 0
St. Marys		75 0 0		57 10 2	132 10 2
Stockton				163 9 9	163 9 9
Tamworth	70 2 4	106 0 0		365 10 3	541 12 7
Tenterfield	310 2 2	84 0 0		152 14 9	546 16 11
Taree				55 13 9	55 13 9
Tumut		46 0 0		119 9 0	165 9 0
Temora		80 0 0		109 15 3	189 15 3
Uralla	10 0 0				10 0 0
Ulladulla	396 10 8	28 0 0		159 6 0	583 16 8
Umarra		379 0 0		95 8 3	474 8 3
Vaucluse	35 16 8			78 15 0	114 11 8
Wellington	51 15 5			124 16 0	176 11 5
Warren		33 0 0		105 8 6	138 8 6
Wollongong	70 4 5	2 0 0		291 12 9	363 17 2
Waverley				1,318 19 6	1,318 19 6
Willoughby				769 17 6	769 17 6
Wilcannia		15 0 0			15 0 0
Waterloo				869 19 0	869 19 0
Wagga Wagga		37 0 0		464 16 0	501 16 0
Wingham		50 0 0	10 11 6	17 13 0	78 4 6
Walcha		123 0 0		85 4 6	208 4 6
Windsor		22 0 0		157 12 6	177 12 6
Wickham			174 0 0	433 7 6	607 7 6
Waratah		15 0 0		251 3 0	266 3 0
Wentworth		7 0 0	40 0 0	63 6 6	110 6 6
Wallsend		24 0 0		206 1 0	230 1 0
Wallendbeen		133 0 0		113 13 9	246 13 9
Woollahra				1,907 13 0	1,907 13 0
Yass		128 0 0		166 11 9	294 11 9
Young		48 0 0		237 6 3	285 6 3
Totals	7,177 16 2	7,926 13 1	1,139 1 11	61,145 19 1	77,389 10 3

Roads and Bridges Yearly Statistical Report, from 1st July, 1896, to 30th June, 1897.

TABLE A.—EXTENT OF DISTRICT.

Classification.	Number.	Mileage.	
		miles.	chains.
ROADS.			
1. Scheduled Roads under Road Superintendent.....	1,446	26,779	32
2. Unclassified Roads under Road Superintendent.....	1,030	11,177	58
3. Scheduled Roads under Trustees	86	624	40
4. Unclassified Roads under Trustees	38	193	40
5. Roads subsidised by Department under Municipal Councils.....	433	1,098	71½
Totals	3,033	39,874	1½
BRIDGES.			
6. Bridges (20-ft. span and over), under care of Road Superintendent or Trustees, or built at cost of Government, on all classes of Roads, within or outside Municipal limits.	Number, 2,842. Total length overall, 267,964 feet.		
FERRIES.			
7. Ferries, subsidised, leased, or worked by Department or Trustees, including emergency Punts and Boats.	No. of Punt Ferries, 100. No. of Boat Ferries, 42. Total No. of Punts, 108. Total No. of Boats, 197.		
MUNICIPALITIES.			
8. Municipalities within limits of district in receipt of subsidies, for which Road Superintendent is required to give Certificates.	Number, 177.		

TABLE B.—CONTRACTS.

Classification.	Number.	Amount.
		£
1. Contracts as let by Local Officers during 1896-7.....	3,139	322,022
2. Contracts as let by head office, but carried out by Local Officers		
3. Aggregate Number and Amount of Contracts as let	3,139	322,022
4. Amount of smallest Contract.....	.....	3
5. Amount of largest Contract .....	.....	2,167
6. Average value of Contracts let by Road Superintendents .....	.....	76/18/-
7. Contracts as completed during 1896-7, including those let prior to 1896-7, Number and Value.....	3,341	295,264
8. Contracts incomplete on 30th June, 1897, and Amount due thereon	695	45,735

TABLE C.—ANALYSIS OF EXPENDITURE.

Inclusive of all Vouchers rendered during 1896-7, and Progress Payments on Contracts incomplete on 30th June, 1897.

	Wages.	Contracts.	Stores, Materials, and Sundries.*	Supervision.†	Municipal Expenditure.‡	Total.
	£	£	£	£	£	£
Roads	120,799	242,381	38,838	13,545	77,389	492,952
Bridges.....	16,388	95,757	8,557	2,644	.....	123,346
Ferries	5,620	1,729	2,809	43,421	.....	43,421
Other Works	3,603	518	2,203	.....	.....	10,166
						6,324
Total Value of Vouchers, as per Voucher Register, 1st July, 1896, to 30th June, 1897. }	146,410	340,385	52,407	59,618	77,389	676,209
Vouchers submitted for payment.....						No. 17,078

* Include goods obtained under annual contracts or locally, freight, compensation, &c.

† Include engineering and travelling expenses, office and store rent, cleaning, lighting, fuel, wages, and expenses of overseers, but not wages of working foremen or gangers.

‡ The amount of certificates given on account of municipal subsidies.

TABLE D.

TABLE D.—PROPORTION OF CLASSIFIED EXPENDITURE TO TOTAL EXPENDITURE.

Classified Expenditure.	Amount.	Percentage on Total Expenditure.
	£	
1. Wages	146,410	21'66
2. Contracts	340,385	50'34
3. Stores, Materials, and Sundries	52,407	7'74
4. Supervision*	59,618	8'82
5. Municipal	77,389	11'44
Total Expenditure	£ 676,209	100'00

* The amount will be that quoted in Table C, plus the salaries and equipment allowances paid by head office to the officers and assistants who were employed in the district during the year.

TABLE E.—TRAVELLING AND COST THEREOF, 1896-7.

Officer.	Miles travelled.			Total Amount of Travelling Expenses Vouchers for above period.
	Road.	Rail.	Total.	
1. Road Superintendents	262,223	73,694	335,917	} £ s. d. 6,820 14 11
2. Assistants	100,281	24,920	125,201	
3. Foremen, Overseers	43,444	2,754	46,198	
Totals	405,948	101,368	507,316	6,820 14 11

TABLE F.—LABOUR STATISTICS. (Monthly Average.)

Classification of Labour.	Permanent.	Temporary.	Total.
By Department.			
Foremen, Overseers	37	29	66
Road Maintenance Men	914	179	1,093
All others (Ferry-men, &c.)	99	246	345
Totals	1,050	454	1,504
Contractors and Contractors' Men			5,200

TABLE G.—REPORTS, MINUTES, RETURNS, &c.

Official Papers, including Reports, Minutes, and Returns (other than Vouchers) registered from 1st July, 1896, to 30th June, 1897, number 25,347.

TABLE H.—SUMMARY OF WORK EXECUTED.

SHOWING Work completed (inclusive of Contracts in progress on 1st July, 1896, but not including Contracts in progress on 30th June, 1897) on Roads under Road Superintendents during the year 1st July, 1896, to 30th June, 1897, and carried out under Contract or by day-labour. Ordinary maintenance not to be included.

Class of Work.	Unit.	Scheduled Roads outside Municipality.	Scheduled Roads within Municipality.	Unclassified Roads outside Municipality.	Unclassified Roads within Municipality.	Totals.
1. Road construction, including formation, metal-ling, gravelling, ballasting, or corduroying, exclusive of clearing or draining	chains	22,808	754	1,317	10	24,889
2. Formation, including cuttings, embankments, not metalled, gravelled, &c., exclusive of clearing or draining	chains	23,751	262	4,328	48	28,389
3. Clearing, any width	chains	59,715	121	23,180	15	83,031
4. Draining	chains	22,325	235	5,762	25	28,347
5. Maintenance metal, gravel, or ballast obtained	cub. yds.	260,247	35,819	5,200	1,857	303,123
6. First-class timber culverts	No.	75	.....	5	.....	80
7. Second-class timber culverts	No.	210	4	39	.....	253
8. Other timber culverts	No.	1,056	6	135	1	1,198
9. Pipe culverts	No.	233	11	33	.....	277
10. Causeways, any class	No.	407	4	104	.....	515
11. Stone, brick, or concrete culverts	No.	26	.....	.....	1	27
12. " " " walls with timber deck	No.	1	.....	.....	.....	1
13. " " " " iron "	No.	.....	.....	.....	.....	.....
14. Fencing, split	rods	4,032	75	88	289	4,484
15. Ordnance fencing	rods	408	31	.....	85	524
16. Punts built	No.	6	.....	2	.....	8
17. Boats—new, built or supplied	No.	9	.....	.....	.....	9
18. Punts overhauled and repaired	No.	56	.....	4	.....	60
19. Boats	No.	52	.....	4	.....	56

TABLE H.—*continued.*

BRIDGES CONSTRUCTED (20-ft. Span and over). Under the Superintendence of Departmental Officers.

Totals.	Details of Spans.		No.	Total Length.
Number of Bridges built—				
New Bridges 71 }	124 {	With iron or steel superstructure, and timber or iron deck.....	9	238
Renewals 53 }		Stone, brick, or concrete arched bridges		
Number of Spans of all kinds—				
New Bridges 227 }	386 {	Timber truss approach spans to iron or steel bridges	377	13,245
Renewals 159 }		Timber truss or arched spans.....		
		Timber beam approach spans to truss bridges.....		
		Timber beam spans.....		
Overall length of Bridges built—				
New Bridges 7,588 }	13,483 ft.	Totals	386	13,483
Renewals 5,895 }				

TABLE I.—GENERAL SUMMARY OF WORK EXECUTED TO 30TH JUNE, 1897.

Irrespective of time or date of effecting same.

ROADS.												
Classification.	Metalled, Gravelled, Ballasted, or Corduroyed.		Formed.		Cleared and Drained.		Cleared only.		Bush or Untouched Road.		Total Mileage (of all the preceding columns).	
	Miles.	Chains.	Miles.	Chains.	Miles.	Chains.	Miles.	Chains.	Miles.	Chains.	Miles.	Chains.
UNDER ROAD SUPERINTENDENT.												
1. Scheduled; outside Municipalities	6,490	61	4,724	37	4,532	21	6,379	30	4,728	49	26,855	38
2. Scheduled; within Municipalities	454	50	81	36	20	8	66	64	8	...	630	78
3. Unclassified; outside Municipalities	255	47	543	47	823	7	1,772	43	7,885	41	11,280	25
4. Unclassified; within Municipalities	75	69	17	11	...	5	12	15	8	70	114	10
Totals	7,276	67	5,366	51	5,375	41	8,230	72	12,631	...	38,880	71
5. Works superseded by deviations ...	4	78	14	74	2	53	20	23	...	40	43	28
CULVERTS (under 20-ft. Span).						BRIDGES (20-ft. Span and over).						
Classification.	Number.	Total Length in feet.*		Classification of Spans.					No. of Spans.	Total Length in feet.		
Iron Decked	90	1,255		Iron or Steel, with Iron Deck } Stone, Brick, or Concrete Arched..... } Timber Trusses or Arches } Timber Beam Spans }					305	} 267,964		
Stone, Brick, or Concrete Arched	677	5,046										
Stone, Brick, or Concrete Walls, with Timber Deck	200	2,112										
Timber, all classes	21,073	203,688										
Pipe.....	10,631	274,806		Totals					7,878	267,964		
	32,671	486,907										
* Length of deck, measured along line of traffic, except in case of pipe culverts, which shall represent length between inlet and outlet.												
Total No. of Bridges.....										2,842		

CAUSEWAYS.

PUNTS, BOATS, FERRIES.

Number.	Total Length in feet along line of traffic.	Classification.	HOW WORKED.								
			Oars only.	Wire Rope without Gearing.	Hand Gearing and Wire Rope.	Steam Gearing and Wire Rope.	Total No.	Total Width between Mooring Posts.			
15,534	377,298	Iron Punts	...	...	3	7	10	feet.			
		Timber Punts.....	...	16	78	...	94	10,774			
		Steam Launches.....	...	...	...	...	1	55,457			
		Horse Boats	...	3	1	...	4	2,492			
		Flood Boats, iron	9	...	1	...	10	350			
		Ditto timber	59	...	...	...	59	1,300			
		Other Boats	120	...	...	...	120	600			
		Punt slips, for execution of repairs.....	...	...	...	...	10	.....			
		Totals	188	19	83	7	308	70,973			

Ferryman's, Bridge Caretakers' or other houses, or buildings, the property of the Department, Number, 51.

Sewerage Construction.

(XVII.)

Report of the Engineer for Sewerage Construction.

Department of Public Works, Sewerage Construction Branch, Sydney, 1 September, 1897.

Sir,

I have the honor to submit the following report of the operations of this Branch during the year ending 30th June, 1897.

I have classified my report as follows:—

1. High-level Sewers.
2. Low-level Sewerage.
3. Eastern Suburbs Sewerage.
4. Double Bay Low-level Sewerage.
5. North Sydney and Mosman Sewerage.
6. Storm-water Channels.
7. Drainage of Country Towns.
8. Detail Survey of Cities, Towns, and Suburbs.
9. Summary of work executed in the drawing offices.

1. Western Suburbs Sewerage.

Outfall Sewer and Sewage Farm.

The main carrier on the sewage farm at Botany is now completed. This work, constructed at a cost of £19,000, is an open concrete channel 8 ft. 8 in. wide by 5 ft. 3 in. deep, extending from the outlet end of the triplicate outfall sewer, for about 40 chains across the Botany sewage farm, on a series of concrete arches of 50 feet span. The passage over Muddy Creek is effected by a wrought-iron trough bridge, and a straining chamber is introduced at each end of the line.

The preparation of filtration areas for dealing with the discharge from the western suburbs has been pushed forward. When these areas are completed, which will be in a few months, the disposal of the sewage can be commenced, and the whole system put into operation. This work is being performed by day-labour.

Main Eastern Branch.

This sewer, extending from Premier-street, Marrickville, passing along the Illawarra-road to the Parramatta-road, near Stanmore station, is now ready for the reticulation connections, the last section to Annandale, 1 mile 15 chains in length, consisting of an oval sewer varying in size from 4 ft. 3 in. x 3 ft. 3 in. to 3 ft. 3 in. x 2 ft. 2 in., and subsidiary pipe lines, having just been completed. An outlet has thus been provided for the sewage of an extensive portion of the Boroughs of Annandale, Leichhardt, Petersham, and Marrickville.

Main Northern Branch.

This sewer, from the Illawarra-road, Marrickville, to the northern end of Leichhardt, is in course of construction. Contracts have been let for the three sections of the main line, consisting of an oval sewer of brick and concrete, length 3 miles 35 chains, decreasing in size from 5 ft. 6 in. x 4 ft. 6 in. at the Illawarra-road, to 3 ft. 3 in. x 2 ft. 2 in. at its head near the Leichhardt Park. This sewer will drain the higher portion of Marrickville, Petersham, and the western side of Leichhardt. A tender has been accepted for the construction of the Dobroyd Branch, which leaves the main branch at Fraser-street, Petersham, a few chains south of the suburban railway line, and extends to Sloane-street, Summerhill, passing under the railway embankment on the Sydney side of the Lewisham railway viaduct, and over the Long Cove Creek Storm-water Channel by means of steel tubing supported by stone piers, the aqueduct being 280 feet long. The size of the sewer is 4 ft. 6 in. x 3 ft. 6 in. at the junction with the main branch, and 3 ft. 6 in. x 2 ft. 4 in. at Sloane-street, and the length is about 58 chains. A line of sewer has been set out leaving the Dobroyd Branch near the aqueduct over Long Cove Creek, and running up the valley almost parallel to the storm-water channel as far as Pigott-street. This sewer will be partly in 3 ft. 3 in. x 2 ft. 2 in. concrete, and partly in 21-inch pipe. These two sewers are designed to drain the whole of Summerhill and portions of Ashfield and Petersham.

Main Western Branch.

This sewer is now in course of construction from the Illawarra-road, Marrickville, to Arthur-street, Ashfield, the work comprising a length of 2 miles 51 chains, being let in two contracts.

The sewer ranges in size from 7 ft. 8 in. x 6 ft. 8 in. to 6 ft. 6 in. x 5 ft. 6 in., and is constructed of brick and concrete, the lining varying considerably in thickness with the different strata passed through. It is chiefly in tunnel through sandstone rock and shale, most of the latter having to be timbered. Immediately west of the Illawarra-road, owing to low ground being met with, land had to be resumed for the purpose of carrying the sewer through in embankment. Tenders are invited for an extension from Arthur-street to Brand-street (a point about half-way between Croydon and Burwood railway stations), with branches extending north and south along the Iron Cove Creek valley. When this sewer is constructed, provision will have been made for the sewerage of portions of Ashfield, Enfield, Croydon, and Burwood. When extended the sewer will drain Strathfield, Homebush, and a portion of Concord. Five Dock and Drummoyne will also eventually be connected with it. Owing to the large number of sewers in course of construction, the contractors have experienced a difficulty in obtaining experienced miners, and if further works of this character are placed on the market, the cost must necessarily be excessive;

in

in the interest, therefore, of the ratepayers the extension of the branch to Homebush has been delayed. The survey of this extension has, however, been proceeded with to the completion of the preliminary work, including the location of the proposed lines of sewer and the necessary levels and borings. In order to ensure the construction of the western branch sewer at the necessary level to deal with the sewerage of Five Dock and Drummoyne, preliminary schemes for dealing with the higher areas of these municipalities were prepared.

Main Northern Sewer.

The length of this sewer from Johnston's Creek, Glebe, to Catherine-street, Leichhardt, including the "Monier" aqueducts, is now completed, and the contract extending onwards to Cook-street, Balmain, is so far advanced that the lining of the tunnels is being proceeded with. A contract has been let during the year for the drainage of the eastern slopes of Balmain, the branch leaving the main sewer at Cook-street, and extending through the area fronting White's Bay, thence passing through the ridge, to the vicinity of Waterview Bay, whence it turns southward and terminates in Stephen-street.

A branch has been designed to drain the western slopes of Balmain; this sewer also leaves the main northern sewer at Cook-street, and passing under the ridge near the eastern boundary of the Callan Park Asylum grounds to a point not far from Long Cove, will skirt the shore of the harbour and proceeding northward will terminate near Cove-street. A branch from this sewer will intercept the sewage of the Callan Park Asylum, which at present runs directly into the harbour.

2. Low-level Sewerage.

Marrickville.

An amended scheme has been prepared for the sewerage of the low-lying parts of Marrickville, St. Peters, Macdonaldtown, and Newtown, which shows a considerable saving in cost and a more effectual way of collecting the sewage than originally propounded.

A site at Marrickville adjoining Meek's-road and the Burwood railway line has been selected for a pumping station, and tenders have been invited in England and the colonies for the supply of the necessary pumping engines to raise the sewage into the western outfall. A contract for the main sewers to drain the area north and easterly of the pumping station is now being prepared, and comprises 2 miles 5 chains of concrete and brick sewer, varying in size from 3 ft. 9 in. by 2 ft. 6 in. to 3 ft. 3 in. by 2 ft. 2 in., and 1 mile of pipe branches.

Woolloomooloo, Circular Quay, Darling Harbour, Pyrmont, Glebe, Annandale, Leichhardt and Balmain East.

Preliminary plans have been made for the drainage of these areas, collecting stations and pumping plant being included in each scheme, in addition to the intercepting sewers. After careful consideration it has been finally decided to lift the sewage by means of centrifugal pumps driven direct by electric motors. The pumping stations, nineteen in number, will be controlled from a central station at Darling Harbour, arrangements having been made with the Railway Commissioners for the supply of the necessary power from the installation shortly to be established for working the electric-tram motors.

The surveys for the pumping stations and sewers in Balmain, from Leichhardt to Waterview Bay along the eastern slopes of Balmain, have been completed, and the detail drawings including designs for the necessary machinery are being prepared. This work includes the construction of a collecting sewer from near the east end of Darling-street to Stephen-street, with a branch sewer to Waterview Bay. These sewers are chiefly in tunnel through sandstone rock, and will be commenced forthwith so as to be in readiness when the electric power is available for pumping operations.

Considerable difficulty has been experienced in the preparation of designs for the low-level sewerage of Woolloomooloo, owing to the large extent of level area near the Quay, and to the number of existing sewers which it will be necessary to intercept. It is the intention to leave the present main sewers, which are of substantial construction as carriers for the storm-waters. It is proposed to lift the sewage at a pumping station near the end of Forbes-street, to which point will also be brought the sewage from the buildings of the Botanical Gardens.

3. Eastern Suburbs.

Waverley and Bondi.

To meet the requirements for sewerage for the rapidly increasing population on the seaward slopes of Waverley and Bondi a survey has been made of this area. It is proposed, in order to avoid any contamination of the beaches, that an intercepting sewer, connecting with the Bondi sewer about half a mile from its outlet, and in the neighbourhood of Sophia-street, should be constructed along the coast from the Bronte Estate. This sewer will pass under two high ridges, which will have to be pierced by tunnel. Owing to the great depths of the shafts, and to the construction of the sewer through running sand near its junction with the Bondi sewer, the work of necessity will be a costly one; no other scheme, however, can be devised to adequately serve the requirements of the area.

Randwick and Kensington.

It is proposed to deal with the drainage of the Randwick and Kensington Estate by a sewer connected with the present ocean outfall at Coogee. Leaving the outfall sewer at Beach-street, it follows up the Coogee Creek to Melody-street. It then strikes south-westerly under a high ridge to the intersection of Avoca and Howard Streets. From this point the sewer will be continued westerly to the Bunnerong-road, and thence along that road to the Randwick-road. A contract for the first portion of the sewer, from the outfall to Avoca-street, a length of 85 chains, has been let, and will be built of concrete and brickwork, of oviform section, varying in size from 5 ft. 3 in. by 4 ft. 3 in. to 4 ft. 6 in. by 3 ft. 6 in.

A considerable length of the sewer will be constructed in tunnel through sandstone rock. The time for the completion of the work is June, 1899, when it will provide an outfall for the more thickly populated portions of Randwick.

4. Double Bay Low-level Sewerage.

The sewers for draining this area have been constructed, and the pneumatic ejectors, on the Shone system, fixed in position. Arrangements have been made with the Railway Commissioners for the supply of electric power from the cable tramway engine house, at Rushcutters' Bay, for lifting the sewage. A contract for the erection of the building at Double Bay for containing the electro motors is almost completed, and tenders have been invited for the supply of the machinery and electric connections.

5. North Sydney Sewerage.

At the outfall works, Long Bay, the excavations for the sewage tanks, power house, and filter beds have been completed; a sea wall, built of the excavated stone, has been thrown across the bay for the retention of the sand for filter beds, and a concrete storm-water channel and sewerage carrier has been constructed along the north-west side of the resumption. The site for the power house has been levelled, and a contract is now in progress for the erection of this building, the settling tanks, and the machinery necessary for the treatment of the sewage. Upon the completion of these important works, the contract time for which expires April, 1898, such of the reticulation pipes as are laid will be connected with the main outfall sewer, and the disposal of the sewage will be commenced forthwith.

The sewer draining the southern shore of Berry's Bay and the northern shore of Lavender Bay has been pushed forward, and will be completed in a few months.

Mosman Sewerage.

A scheme has been prepared for intercepting the drainage of the suburb of Neutral Bay and Mosman by a sewer connecting with the main North Sydney Outfall Sewer at McLaren-street, and following along the harbour coast as closely as the intersecting gullies will allow of cover being obtained. The preliminary survey has been made for the first division, the contract which it is proposed to terminate at Wickham-road, to which point a large portion of the drainage of the slopes of Neutral Bay can be collected.

6. Storm-water Channels.

Double Bay.

The open storm-water channel along Double Bay Creek, for a length of about 55 chains to the bay, is almost completed, including the trough girder bridge at William-street.

Willoughby.

At Willoughby Creek, North Sydney, near Falcon-street, a closed storm-water sewer, 3 feet in diameter, and 35 chains long, has been built.

Homebush.

A branch of the Homebush Creek Storm-water Channel has been finished near Russell-street, comprising 15 chains of 2 ft. 9 in. circular sewer.

Another branch of the same channel, extending from Clarendon-street to Albyn-street, along the old watercourse, consisting of 62 chains of closed sewer, is in course of completion.

Euroka Creek.

The specification and designs have been made for a closed storm-water channel at Euroka Creek, North Sydney, about 20 chains in length.

Johnston's Creek.

Designs have been made for the extension of Johnston's Creek Storm-water Channel from Booth-street upstream to Parramatta-road, with branches.

Plans were completed, and tenders will shortly be invited, for continuing the present Johnston's Creek Storm-water Channel to the waters of Rozelle Bay. The channel designed is 51 feet wide, by 5 feet 4 inches deep, and the length is 16 chains.

Callan Park.

The Specification and Plans for a storm-water sewer, to drain Callan Park to Long Cove, have been completed; and a branch of Long Cove Creek Storm-water Channel to Park-road, Petersham, is being designed.

7. Country Towns.

Newcastle Pasturage Reserve Drainage.

In connection with the main channel, now under construction, and consisting of some 2 miles 63 chains of open cutting, designs were made for a bridge at the crossing of the Waratah Coal Co.'s Railway, as well as for traffic bridges at the crossing of Lambton and Glebe Roads.

On the Adamstown branch, a steel girder bridge was designed for carrying the Great Northern Railway over the channel. A tramway and road bridge at Lambton-road, and bridges to carry the Waratah Coal Co.'s Railway, and the Lambton Colliery Railway, over the Lambton branch channel, and several bridges for ordinary road traffic, were designed.

The whole of this work is being satisfactorily carried out by day-labour.

Newcastle.

The open concrete channel at Cottage Creek, 20 feet wide, by 5 feet in depth, for a distance of 14½ chains, between the G.N. Railway and the A.A. Co.'s Railway, was finished.

A branch of this channel, extending to Hannell-street, has been surveyed, and the plans and specifications are in course of preparation.

Orange.

At Orange, along the Blackman's Creek, a length of about 35 chains of open channel has been completed, providing a proper outlet for the storm-waters.

Byron

Byron Bay.

A channel in earth cutting at Byron Bay Village, 1 mile 50 chains in length, and, on an average, 12 feet wide, has been designed. This work, which will be of great benefit to the locality, is being carried out by day-labour.

Kiama.

A survey has been made for a closed channel along the course of the creek, through the centre of the town, to drain away the storm-waters.

Parramatta Sewerage.

The Departmental scheme for Parramatta has received the approval of the Public Works Committee, and the storm-water channel at Brickfield Creek has been extended to Grose-street, a length of 9 chains of open concrete channel, draining the rainfall from an additional area of 490 acres.

8. Detail Survey of Cities, Towns, and Suburbs.

Sydney and Suburbs.

The surveys of the Municipalities of Drummoyne and Five Dock were completed during the year.

The standard survey of the Illawarra suburbs was brought to a conclusion, and the filling in of the detail sheets has been proceeded with in the Municipality of Rockdale.

In response to applications from the Municipal Councils in the Willoughby District for a sewerage scheme, a standard survey has been made, embracing the populated areas, and the detail will be proceeded with when a surveyor is available.

The detail survey of Granville has been suspended, owing to the removal to the country of the officer who was carrying on the work.

Newcastle and Suburbs.

The detail surveys of the municipalities of Adamstown, Waratah, Lambton, and Merewether have been completed, and levels are now being taken for preparing a contour map of the city of Newcastle and the more adjacent suburbs.

East and West Maitland.

The survey of West Maitland was brought to a conclusion in the beginning of the year. The Municipal Council of East Maitland have asked that a scheme for sewerage of the town may be prepared; levels are now being taken to aid in preparing a scheme that will deal with the sewerage of both East and West Maitland.

9. Summary of Work Executed in the Drawing Offices.

During the year, 32 contracts were got out, for which 220 drawings and 1,737 heliographs were prepared, the value of the work designed amounting to £329,015. In addition to this, drawings for works valued at £70,560 are now in progress.

Fifty-five sheets of the detail survey of Sydney, Newcastle, and their suburbs were drawn, and 33 tracings prepared for heliography. Eighty-four sheets were published, and 758 heliographs were issued to the Water and Sewerage Board and Government Departments, &c.

One hundred and twenty drawings of resumptions and indemnity plans, &c., were prepared; and 537 heliographs of miscellaneous plans published.

A compilation of Newcastle and suburbs, on a scale of 8 chains to an inch, and a revised index map of Sydney and suburbs have been prepared. These maps will be of general use throughout the Government Departments.

J. DAVIS,

Engineer for Sewerage Construction.

The Under Secretary for Public Works.

(XVIII)

RETURN of Expenditure on Sewerage Construction from 1st July, 1896, to 30th June, 1897.

Work.	Whether Constructing or under Repair.	Funds from which the Expense is defrayed.	When commenced.	If Finished, actual amount of Expenditure.	If Unfinished, Amount of Expenditure to 30 June 1897.	Amount Expended from 1st July, 1896, to 30 June, 1897
				£ s. d.	£ s. d.	£ s. d.
Ashfield Storm-water Channels, purchase of			1896	.....	1,500 0 0	1,500 0 0
Bay-street Overflow Sewer			1894	.....	189 9 6	34 18 0
Brickfield Creek, Parramatta Storm-water Channel			1895	.....	2,782 9 0	811 12 8
Bondi and Waverley Sea Slopes					47 1 1	10 8 4
Branch Sewer draining parts of Waverley and Randwick...		Loans.	1896	.....	86 0 1	86 0 1
Clay Cliff Creek, Parramatta, Storm-water Channel			1894	.....	3,262 14 6	11 14 0
Cottage Creek, Newcastle, Storm-water Sewer			1895	.....	2,990 16 0	2,976 18 9
Careening Cove Storm-water Channel					0 7 6	*
Construction of Drain across Reclamation to connect with Main Drain, Long Cove		Con. Rev & Loans.	"	664 8 6	.....	661 5 6
Country Towns Sewerage					2,125 9 7	2,111 5 10
Callan Park Reclamation Storm-water Channel		Loans.	1896	.....	17 9 5	17 9 5
Darling Harbour Lower Level Sewerage Scheme					106 17 8	106 17 8
Drainage of Sandgate Cemetery, Newcastle		Con. Rev.	1893	851 8 10	.....	*
Darling Point Sewerage			1890	25,415 11 11	.....	*
Dowling-street to Buckland-street Storm-water Channel ...			1892	8,620 10 6	.....	*
Double Bay Channel, from Main Bondi Sewer to Double Bay			1895	.....	7,080 3 10	3,456 0 9
Double Bay Low-level Sewerage Scheme			"		7,678 0 2	5,713 17 9
Easton Park, Balmain, Storm-water Channel			1894	1,450 4 11	.....	17 7 10
Euroka Creek Storm-water Channel			1896	.....	141 2 2	141 2 2
Eveleigh Railway Siding to Alexandra Park Storm-water Channel			1891	2,630 0 0	.....	804 9 4
Homebush Creek Storm-water Channel			1892	.....	19,036 10 0	3,364 15 3
Iron Cove Creek			1891	30,100 0 0	.....	*
Ironbark Creek, Plattsburg, Storm-water Channel			1892	7,690 6 4	.....	*
Johnston's Creek Storm-water Channel			1891	.....	11,212 15 6	1,727 9 8
Johnston's Creek Storm-water Channel, Newtown Branch			1894	.....	328 15 2	153 14 0
Kensington Estate Drainage, Randwick		Loans ...	1895	960 0 0	.....	*
Long Cove Creek Storm-water Channel			1891	.....	16,601 18 10	*
Long Cove Sewer, Leichhardt Branch			1894	5,000 0 0	.....	*
" Petersham Park			"	2,483 16 2	.....	*
" Smith-street Branch			"	1,595 10 0	.....	*
Mossmans and Outfall Works			1896	.....	41 5 8	41 5 8
Manly Sewerage			1889	.....	637 0 0	*
Minor Storm-water Sewers, Western Drainage		Con-structing	1892	15,000 0 0	.....	377 5 7
" Northern "			1896	.....	4,544 5 7	4,544 5 7
North Shore Land Resumption			1894	.....	9,550 13 10	3 18 2
North Shore Sewerage			1889	.....	102,214 7 2	13,415 16 10
Neutral Bay and Careening Cove Storm-water Channel ...			1892	.....	6,573 1 0	*
Pymont Bridge Road Storm-water Channel			1890	3,305 18 4	.....	71 12 7
Pymont Sewerage			1891	.....	607 9 2	*
Parramatta "			1882	.....	16,685 7 11	*
Point Piper Road Storm-water Channel			1892	11,436 6 9	.....	1,029 1 10
Paddington, Opening new Street		Con. Rev.	1886	.....	5,268 4 3	*
Potts Point and Elizabeth Bay Sewers			1892	10,470 16 2	.....	63 11 3
Randwick (East and West) Storm-water Drainage			1893	.....	128 2 4	*
Randwick Sewerage			"		484 17 1	*
Rose Bay Side Drainage Storm-water Channel			1891	3,165 4 7	.....	31 15 3
Rookwood Necropolis Drainage			1892	.....	14,991 15 9	100 6 10
Rockdale Creek Storm-water Channel			1895	.....	62 1 2	*
Raising Storm-water Sewer from Eveleigh Sheds to Cope-land-street			1894	2,483 17 0	.....	670 2 6
Resumption and Temporary Occupation of Land, Pad-dington and Rose Bay Side Drainage			1895	15 15 0	.....	*
Storm-water Channel, Newcastle District, Pasturage Reserve Drainage		Loans.	"	.....	15,681 10 1	3,342 9 8
Sewerage, City of Sydney, Kent-street Sewer			1879	822,748 9 1	.....	*
Stanmore Road, Marrickville Storm-water Channel			1895	.....	306 17 11	*
Towards straightening course of Styx and Throsby Creeks, Newcastle District			"		8,083 0 11	5,716 14 6
Waverley and Woollahra Sewerage			1889	.....	34,288 2 6	292 7 3
Western Suburbs Sewerage, Main Scheme			"		522,041 11 7	71,641 17 11
White's Creek Storm-water Channel			1895	.....	263 5 6	7 0 0
Willoughby Falls Creek Storm-water Channel			"		1,047 12 3	1,003 7 3
Wallsend Storm-water Channel			"		2,437 10 5	413 12 7
Woolloomooloo, providing new sewers and elevating Sewage into Main Bondi Outfall Sewer			1896	.....	152 3 11	152 3 11
Orphan School Creek Storm-water Channel			1891	1,350 0 0	.....	131 12 9
Detail Surveys		Consoli-dated	1896	1,836 11 4	.....	1,836 11 4
Incidental			"	49 14 2	.....	49 14 2
Work done for other Departments		Revenue.	"	66 17 5	.....	66 17 5
Totals				959,391 7 0	821,278 6 0	128,710 17 10

* No expenditure, 1896-7.

SUMMARY OF EXPENDITURE.

	£ s. d.
Loans	126,757 14 11
Revenue	1,886 5 6
Services for other Departments	66 17 5

£128,710 17 10

SEWERAGE CONSTRUCTION BRANCH.

Year.	Loans.	Revenue.	Services for other Departments.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1879 .....	.....	.....	.....	409 12 3
1880 .....	.....	.....	.....	3,206 18 0
1881 .....	.....	.....	.....	16,818 1 7
1882 .....	.....	.....	.....	36,507 13 2
1883 .....	.....	.....	.....	105,607 17 7
1884 .....	.....	.....	.....	122,526 10 2
1885 .....	.....	.....	.....	170,765 15 1
1886 .....	.....	.....	.....	160,693 19 10
1887 .....	.....	.....	.....	128,956 8 5
1888 .....	.....	.....	.....	76,061 18 10
1889 .....	.....	.....	.....	90,931 19 2
1890 .....	.....	.....	.....	93,992 19 2
1891	202,922 0 11	8,775 3 7	.....	211,697 4 6
1892	202,294 2 1	11,113 7 8	.....	213,407 9 9
1893	109,638 7 3	4,281 18 8	.....	113,920 5 11
1 January, 1894, to 30 June, 1895	236,340 3 10	5,347 18 9	.....	241,688 2 7
1 July, 1895, to 30 June, 1896	130,707 18 6	2,108 5 3	.....	132,816 3 9
1 July, 1896, to 30 June, 1897	126,757 14 11	1,886 5 6	66 17 5	128,710 17 10
£ 1,008,660 7 6		33,512 19 5	66 17 5	2,048,719 17 7

Land Valuation.

(XIX.)

Report of the Land Valuer.

Department of Public Works, Valuation Branch, Sydney, 12 November, 1897.

IN compliance with your B.C. Minute of 7 September, I have now the honor to submit my report upon the operations of this Branch from 1 July, 1896, to 30 June, 1897, which may appear, perhaps, a little voluminous, as not recently has a similar report been called for or furnished.

It will be known to you that all land resumed for any purpose (save the Public Instruction Department) is acquired by the Valuation Branch. So soon as a railway line is approved by Parliament, the Draft Proclamation is issued from this office, *Gazette* notices prepared, advertisements issued and written, and all necessary formalities are prepared and checked by my officers, duplicate notices of taking, and plans drawn and attached; when completed these are served, and notices of claims filed. The abstracts of title having been delivered, my draftsmen report upon the dealings as affecting the title, and, having given the certificate of identity, the valuation is made,—if accepted, description is prepared for conveyance and certified to.

The work of this Branch is of a very diversified nature, embracing as it does:—

1. Valuations of land resumed for Railways, Sewerage, Water Supply, Reclamations, Post Offices, Police Stations, Bridge approaches, &c.
2. Compensation for temporary occupations.
3. Estimates of costs of resumptions.
4. Sales of surplus lands.
5. Exchanges of lands.

Summarising the work done, it may be noted that during the period under review,—97 valuations have been made, the amounts ranging from a few pounds up to £37,000; 86 cases standing over from previous years have been settled; 62 cases have been prepared for valuation, involving very large sums, including the preparation of data for combatting the Darling Harbour claims; 56 cases of temporary resumptions; 22 estimates of proposed resumptions of railways, &c., have been prepared; 5 court cases have been set down for hearing, 2 of which have been settled amicably, 2 won by the Department, and 1 lost. All these cases were worked up by this Branch.

Besides this regular work, all sorts of miscellaneous questions are submitted to this Branch for consideration with the Crown Solicitor, and questions of procedure frequently advised upon.

A number of long-standing cases, involving disputed titles hung up for years, have engrossed attention, such as Ramsay's, Long Cove, Rozelle Bay reclamations, &c.

Notifications of resumptions and long descriptions have been prepared in the following cases:—

Balmain Sewerage.	Bungwall Wharf.
Bourke Lock and Weir.	Bega Bridge.
Billabong Weir.	Canterbury approaches.
Coutts Crossing.	Inglewood approach.
Cockle Creek Extension Drains.	Kempsey Bridge.
Darling Harbour Wharfs.	Liverpool Water Supply.
Deep Creek approaches.	Marrickville Sewerage.
Greenridge Wharf.	Menindie Ferry.
Gin Gin Weir.	Morpeth Bridge.
Parramatta Court-house.	Ryde Punt approach.
Parkes Water Supply.	Shea's Creek Extension.
Picton Bridge.	Tamworth Water Supply.
Parkes Water Supply.	Woolway Creek.
Quirindi Bridge.	Wyalong Post Office.
Potts Hill Pipe line, &c.	

Proclamations have been issued for—

- Parkes to Condobolin Railway.
- George and Harris Streets Tramway.
- Railway connection, Darling Harbour.
- Nevertire to Warren Railway.

Localities visited and reported upon extend over the length and breadth of the Colony.

During the year reports have been furnished, amongst other things of a minor nature, upon—

- 3 routes of City Railways.
- 22 sites for Police Stations.
- Sites for Fire Stations.
- Proposed Sewerage resumptions at Johnston's Creek, Shea's Creek, Glebe Island, Double Bay, &c.
- Berrigan to Finley Railway, exchanges negotiated.
- Commissioners for Taxation supplied with details of lands resumed from various grants.
- Returns of lands resumed prepared for Government Statistician.

The office is divided into two branches, clerical and professional.

In

In the clerical branch, where all proclamations are prepared, sales faithfully recorded, correspondence conducted and records kept, valuations and offers written, are three officers and one messenger.

The professional staff consists of a chief draftsman, an assistant, and cadet, who write descriptions, certify to correctness, identify for Crown Solicitor all lands resumed, prepare and check notices of resumption, collect date of transfers, consideration money paid, &c. This staff of three have dealt with over 300 cases necessitating searches at Registrar-General's Office. When claims and abstracts of title are received, these are forwarded to the Crown Solicitor for examination, who returns them with a search paper showing dealings, and as only Register Nos. are given, searches have to be made to protect the Crown against claims for lands not affected by resumptions. Indicative of the precision of their work, in no single case has the wrong owner been treated with, though attempts are frequent to claim for land outside the titles submitted. In addition to this work, good progress has been made in preparing copies of railway plans for the guidance of the Commissioners.

My branch at the present time has a large amount of work in hand, including the following important cases:—

Darling Harbour resumptions, aggregating claims of £325,000.

Moree to Inverell Railway.

George-street Tramway.

Newcastle Drainage.

Rickettson Wyalong cases.

Tamworth to Manilla Railway, &c.

In submitting this report I should like to emphasise the necessity for appointing to this branch only officers of proved integrity; the work is of a very confidential nature, necessitating absolute secrecy, and probity is of paramount importance. It is my pleasure to congratulate you upon the personnel of the staff at the date of this report.

EDWARD J. SIEVERS,
Government Land Valuer.

The Under Secretary for Public Works.

(XX.)

RETURN of Expenditure on Land Resumptions from 1st July, 1896, to 30th June, 1897.

Branch.	Compensation.	Interest.	Law Costs.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Roads and Bridges	2,274 12 8	120 4 11	170 4 6	2,565 2 1
Harbours and Rivers	16,489 8 10	3,364 4 8	1,550 2 5	21,403 15 11
Government Architect	1,434 0 0	19 12 8	48 14 2	1,502 6 10
Railway Construction	7,019 16 10	1,046 16 0	1,310 16 0	9,377 8 10
Sewerage	2,727 19 0	522 6 4	141 0 8	3,391 6 0
Water Conservation	106 14 6	1 8 9	13 0 4	121 3 7
				£38,861 3 3

Hunter District Water Supply and Sewerage Board.

(XXI.)

Report of the President.

Newcastle, 1 December, 1897.

IN compliance with your wire of yesterday, I beg to hand you herewith a short report on the operations of the Board for the year ended 30th June last.

Water Supply.

The total quantity of filtered water pumped from Walka to the service reservoirs during the year was 266,979,533 gallons, giving an average daily supply of 731,451 gallons.

The estimated population supplied was 34,655, and the average consumption per head per day was 21.10 gallons.

There were 685 premises connected during the year, making the total number supplied 6,931.

During the year 6 miles 517 yards of new watermains were laid, the principal extension being a main to supply the works of the Sulphide Corporation (Ashcroft's Process), Limited, at Cockle Creek, Lake Macquarie.

In addition to the supply of water for street watering and gutter flushing, the Board granted free supplies to public hospitals, charitable institutions, and parks of slightly over one million gallons for the year.

The system of hiring out meters continues to give satisfaction to the public, and is found to be in the interests of the Department, as repairs to such meters are made by the Board and can be executed without delay. During the year 156 meters were issued, making a total of 182.

Ratepayers have also taken advantage of the Deferred Payment System for the laying on of water; 87 houses were connected under the system during the year, making a total of 435. The Board allow ratepayers to select any licensed plumber to do the work whose price suits them, and the cost is repaid by quarterly instalments bearing interest at 5 per cent., and extending over a period not exceeding three years.

Of the 11,555 premises liable for water rates only 6,925 are connected. Owing to the depression the Board have not considered it advisable to exercise their powers under the Principal Act to compel the owners or occupiers to connect. Every facility is, however, afforded by the Deferred Payment System whereby the poorest ratepayer may have his premises connected, and repay the cost by easy quarterly instalments.

Regular inspections of the catchment area of the Hunter River, for a distance of 20 miles above the intake at Walka, have been made. The area was found, with one or two minor exceptions (which were promptly dealt with), to be free from pollution of any kind.

Samples of the water from the Hunter River storage reservoir, settling tank, and clear water tank at the Walka pumping station and from the reticulation mains are forwarded monthly to the Board of Health for analysis. The Government Analyst's reports have been favourable, and show that the water is fit for all domestic purposes.

Every effort has been made by the Board to improve the filtration and aeration of the water, and the results obtained are very satisfactory.

The improvements to the buildings and machinery at the Walka pumping station, commenced last year, have been completed and are giving satisfactory results. In conjunction with the new duplicate suction and rising mains, now being carried out by the Department of Public Works, these improvements to the machinery will place the Board in a position to cope with the increased consumption of water.

The cost of pumping 1,000 gallons 100 feet high was 45 pence.

Financial.

An Amending Act is now before Parliament. Amongst other amendments a new ratable area has been fixed, under which properties having a frontage to the street in which a main is laid will be ratable for a distance of 440 yards. The provisions of the Principal Act, under which Crown properties have hitherto been rated, have been extended so as to render ratable the properties of the Railway Commissioners.

The Act further provides for the revision of the capital indebtedness of the Board to the Government, and the Gazetting of same to the 30th June, 1897, and thenceforward annually.

The following figures show the result of the operations of the Board for the year ending 30th June, 1897:—

Revenue.			Expenditure.		
	£	s. d.		£	s. d.
Rates, Special Fees, Meter Accounts, and Miscellaneous charges	22,518	0 9	Interest on Capital Debt, at 3½% per annum, on £428,025	14,980	17 9
Balance (Deficiency)	1,466	14 4	Management expenses	4,382	16 5
			Working expenses	4,211	7 3
			Maintenance	409	13 8
	£23,984	15 1		£23,984	15 1

The result of the year's operations was a deficiency of £1,466 14s. 4d. Only the actual expenditure on maintenance is shown, but to this must be added the difference between the amount actually expended during the year and the proper instalment which the Amending Act directs shall in future be set aside annually from revenue to build up a proper sinking fund for the reconstruction of renewable works. This difference amounts to £2,025. The year's deficiency may, therefore, be fairly taken as £3,491 14s. 4d.

The Board have given serious consideration to the heavy amount of their capital indebtedness to the Government, and intend asking the Honorable the Minister to extend the same consideration to the Hunter District as he has already given to country towns, by reducing the capital debt to such an amount as will enable them to meet the obligations of the Amending Act on the present maximum rate of 1s. in the £.

The Board had hoped that, with the additional revenue which the Amending Act will enable them to collect, the present rate of 1s. in the £ might have been reduced, but in view of the heavy reduction of the capital debt which the Minister will have to be asked to make to enable them to pay their way on the 1s. rate, the Board realise that no larger reduction in the debt could be reasonably asked for, and the reduction of the rate must, therefore, be reluctantly postponed until the revenue improves. The consumption of water is increasing, and new mains are being extended wherever a return of 5 per cent. on the outlay can be obtained. With this additional revenue, and when values of property improve, the Board hope to be able to make a reduction in the rate.

The percentage of management expenses to revenue was 19·46, and of working expenses 18·70. Taking into consideration that every gallon of water has to be pumped, the Board regard these percentages as satisfactory.

The Under Secretary for Public Works.

H. D. WALSH,
President.

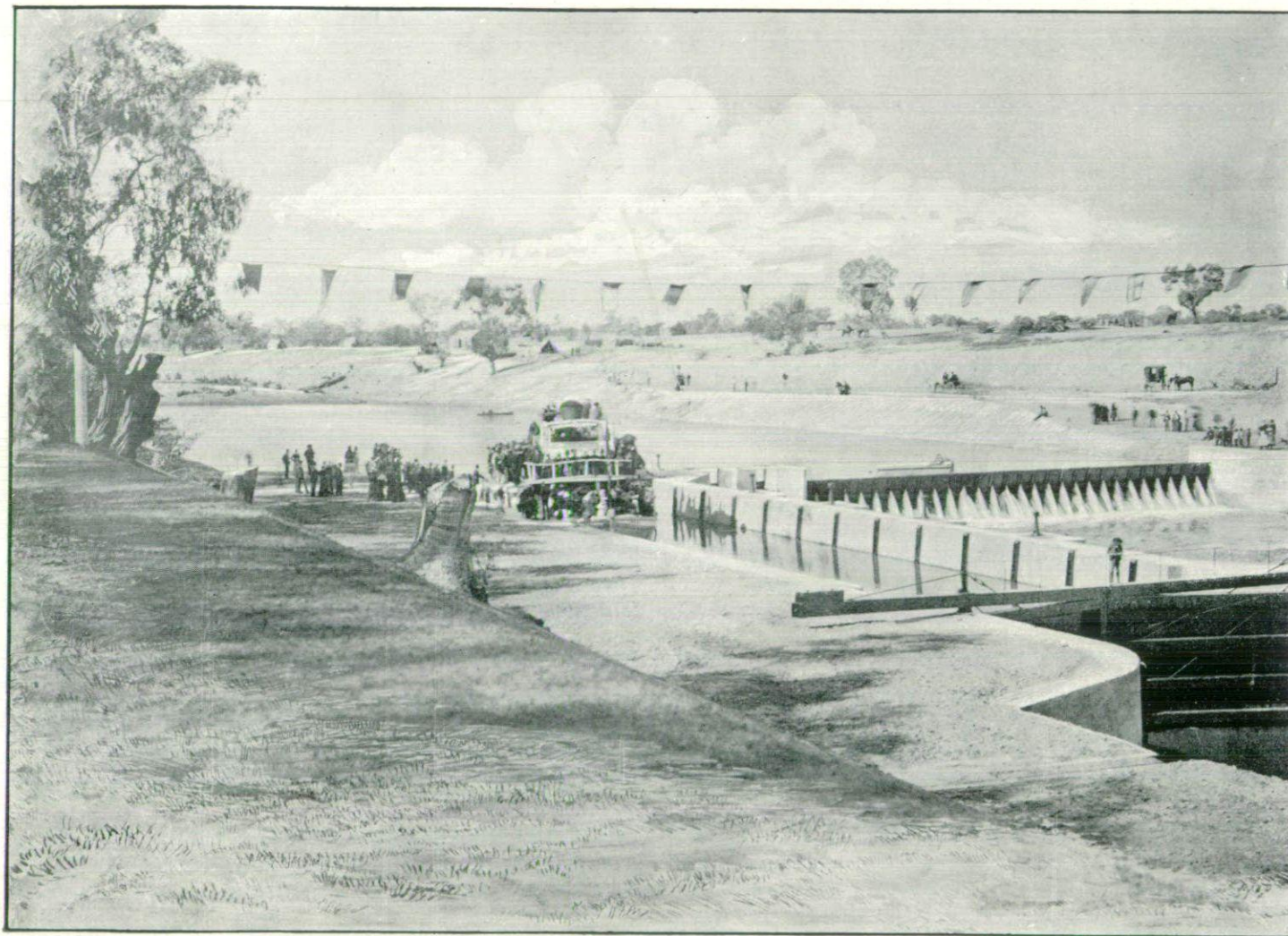
[19 Plans, &c.]



N.S. WALES GOVT PILOT S.S. "AJAX"



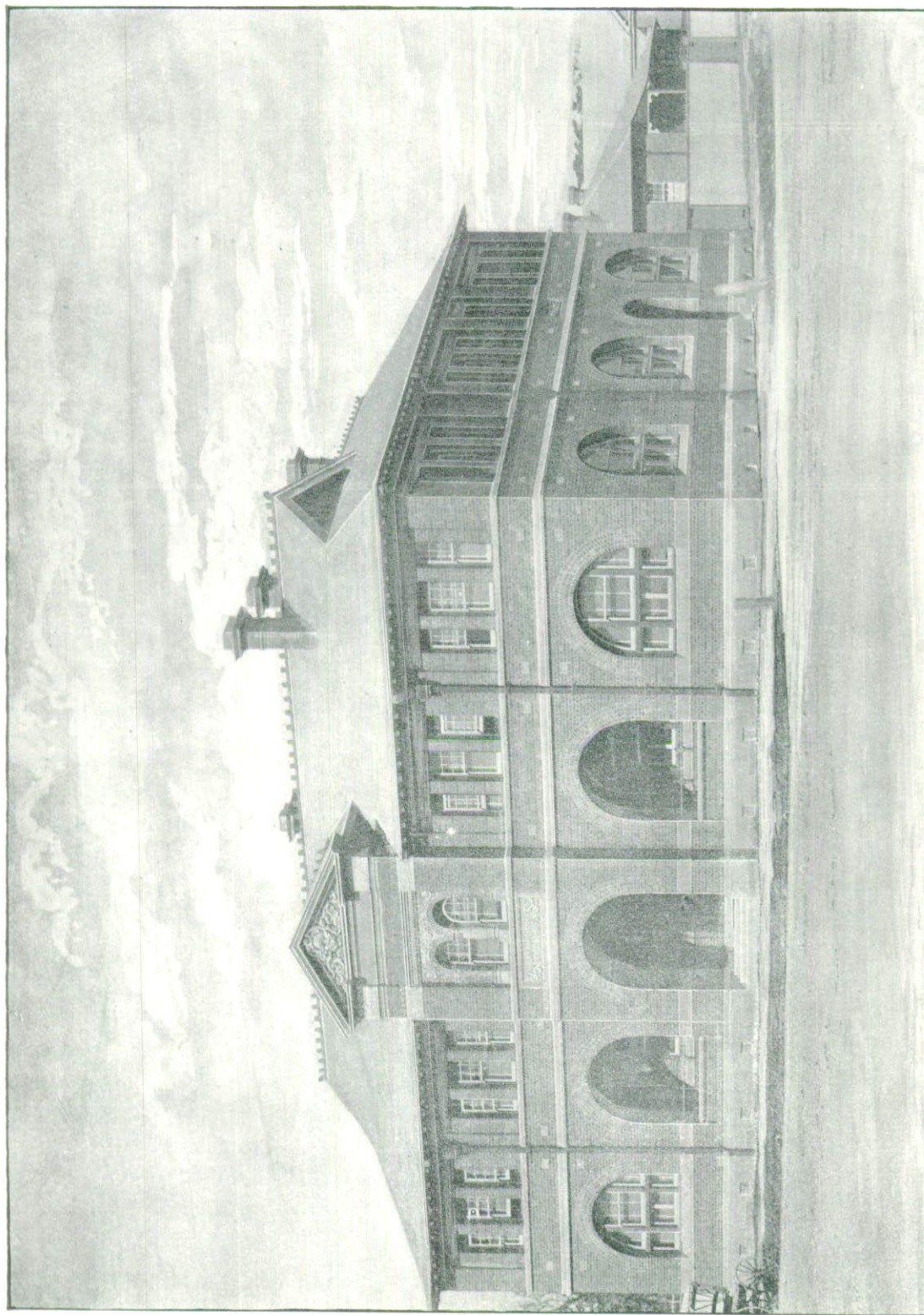
LOCK AND WEIR ON RIVER DARLING NEAR BOURKE, NEARING COMPLETION.



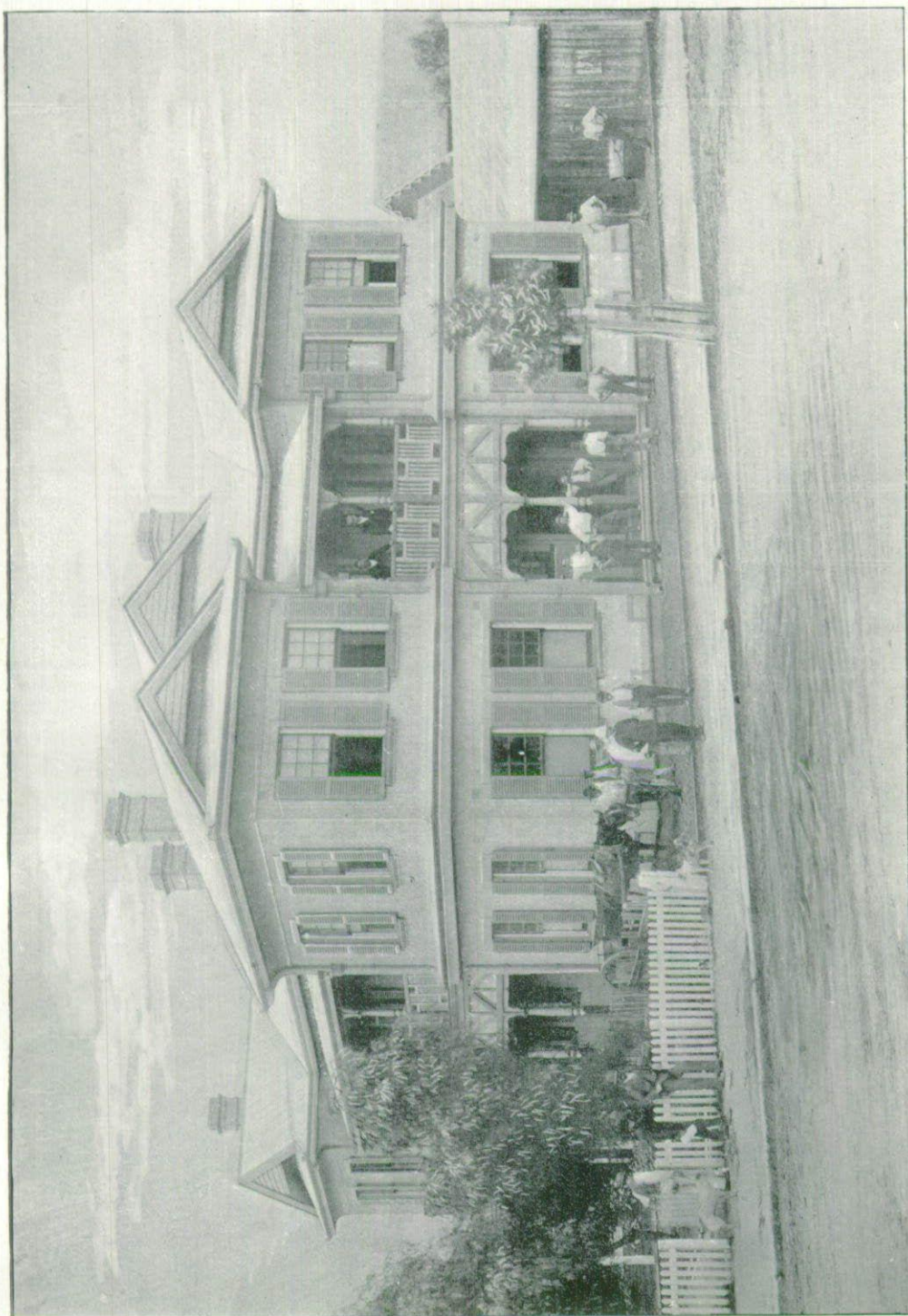
LOCK AND WEIR ON RIVER DARLING, NEAR BOURKE, ON DAY OF OPENING.



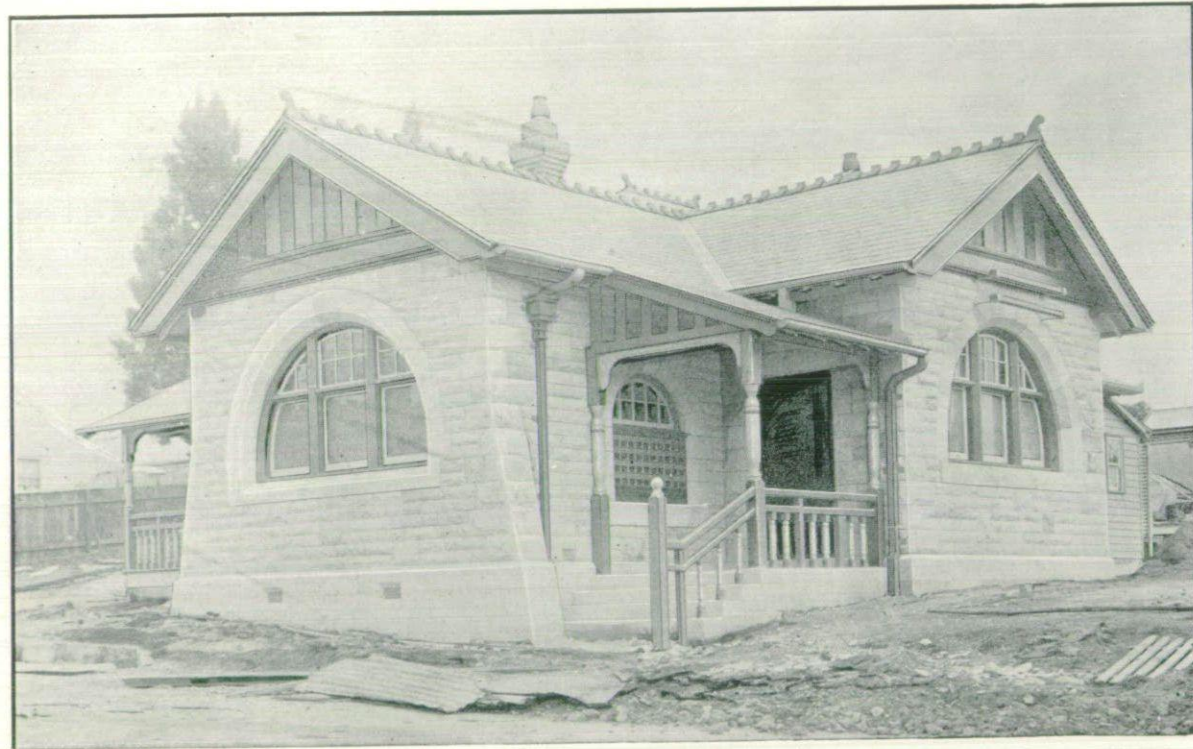
COURT HOUSE AND POLICE BUILDINGS, PARRAMATTA.



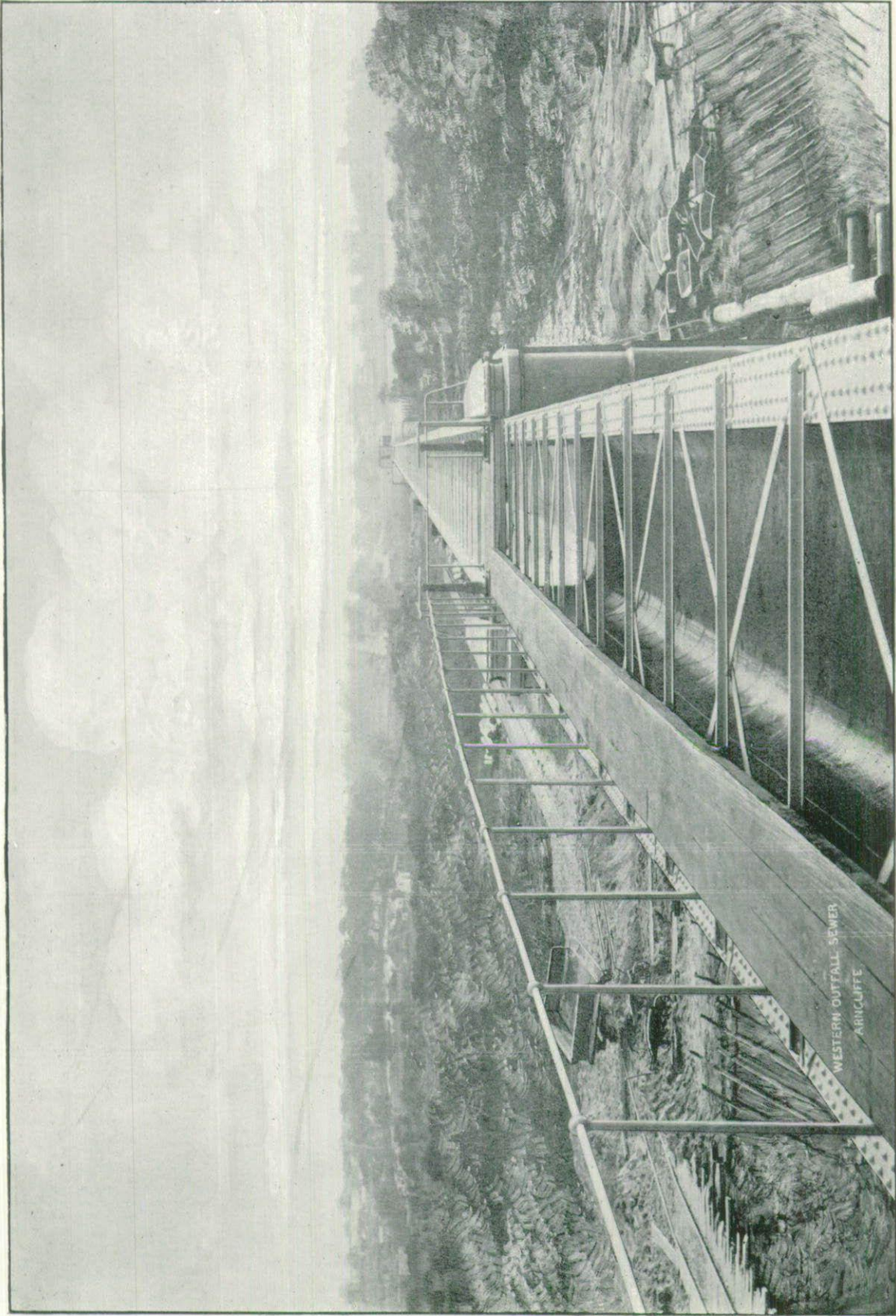
LAND AND SURVEY OFFICES. EAST MAITLAND.



LAND AND SURVEY OFFICES, DUBBO.



MOUNT VICTORIA POST AND TELEGRAPH OFFICE.





NORTHERN MAIN SEWER WHITE'S CREEK AQUEDUCT



MAP
of
NEW SOUTH WALES RAILWAYS
showing
COACH AND OTHER ROUTES FROM THE VARIOUS STATIONS

Scale, 60 Miles to an Inch

Explanation
Railway lines marked thus —————
Coach routes do do - - - - -
Railways under construction do - . - . -

1897.



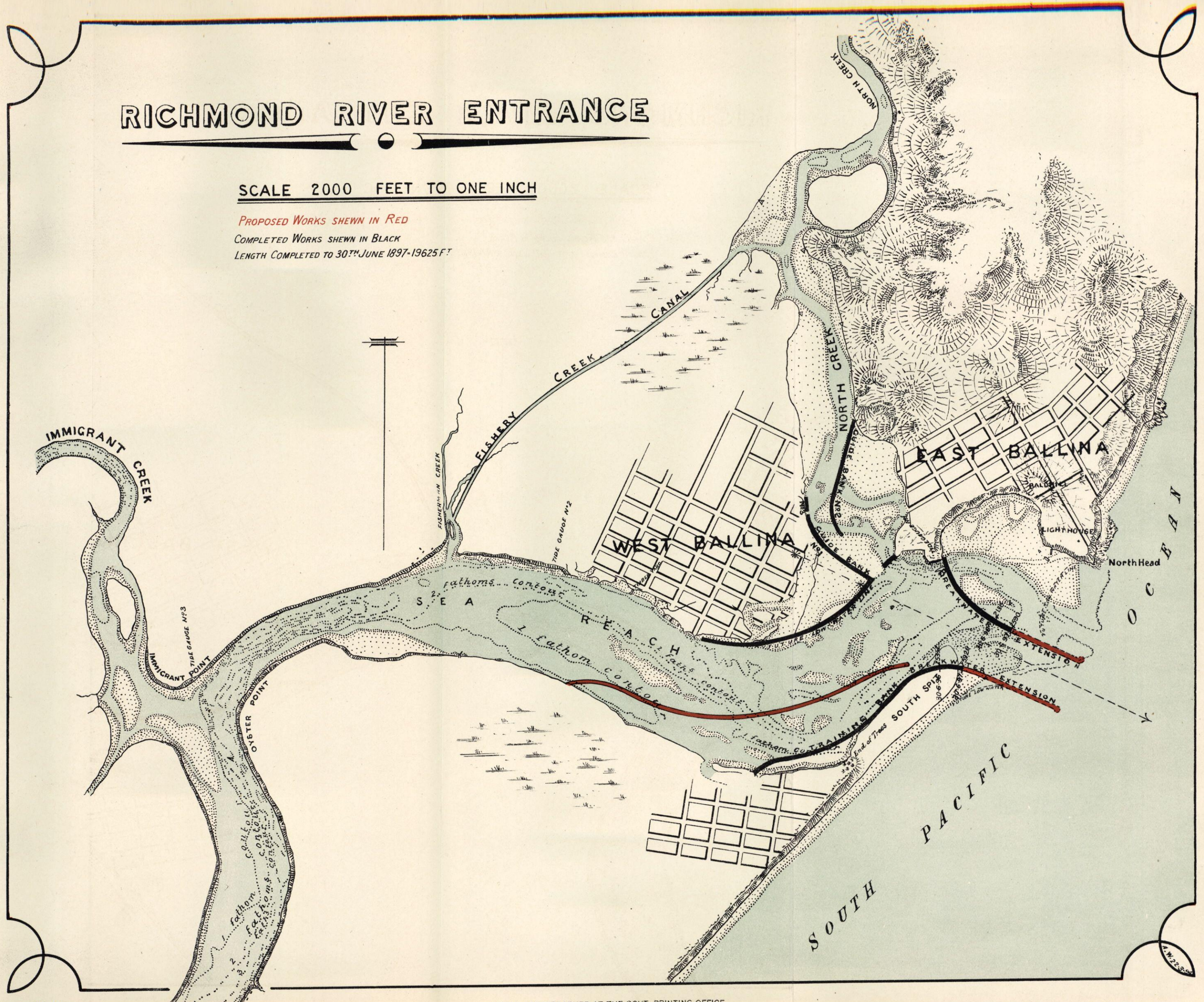
RICHMOND RIVER ENTRANCE

SCALE 2000 FEET TO ONE INCH

PROPOSED WORKS SHEWN IN RED

COMPLETED WORKS SHEWN IN BLACK

LENGTH COMPLETED TO 30TH JUNE 1897-19625 F.T.



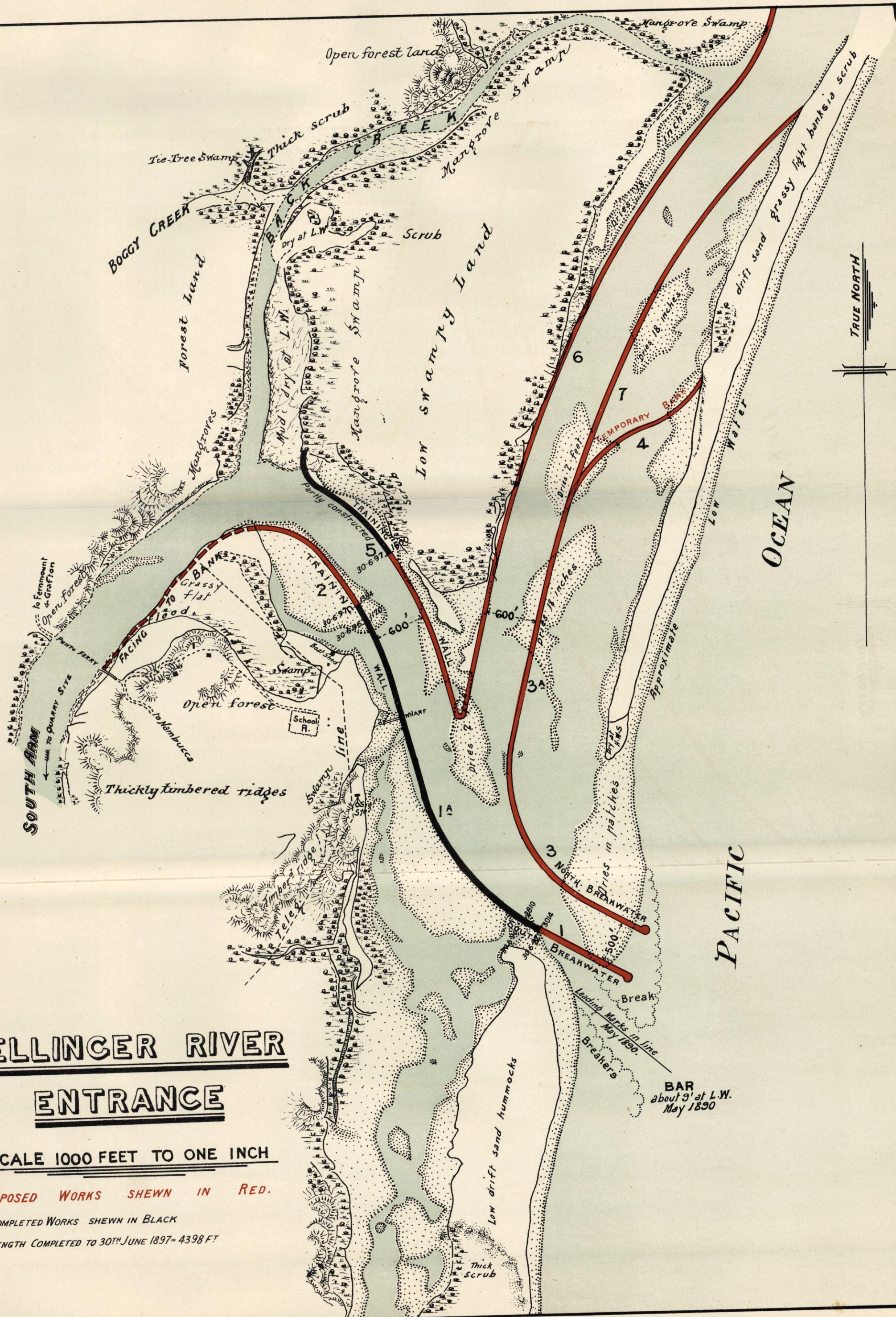
BELLINGER RIVER ENTRANCE

SCALE 1000 FEET TO ONE INCH

PROPOSED WORKS SHEWN IN RED.

COMPLETED WORKS SHEWN IN BLACK

LENGTH COMPLETED TO 30TH JUNE 1897= 4398 FT



NAMBUCCRA RIVER ENTRANCE

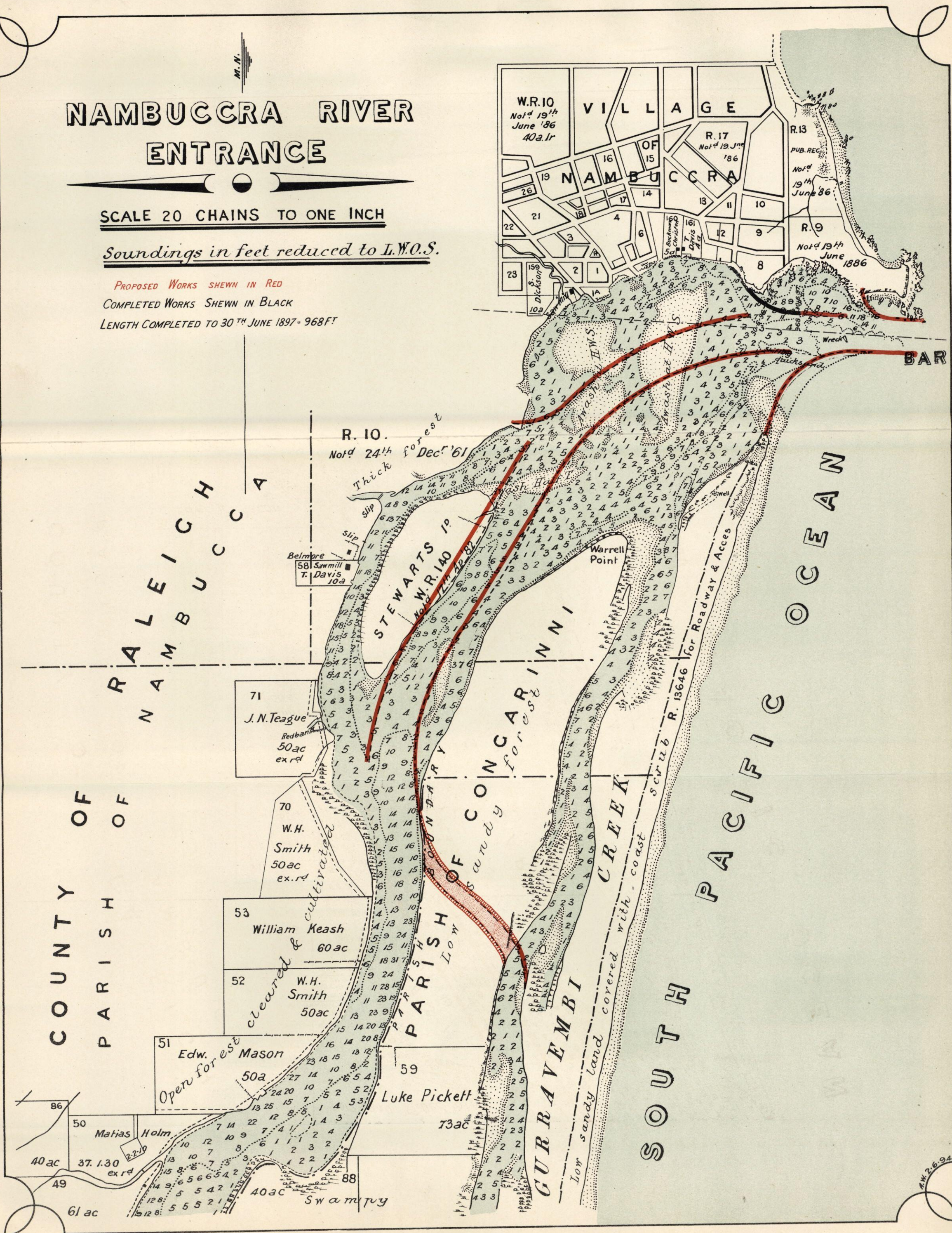
SCALE 20 CHAINS TO ONE INCH

Soundings in feet reduced to L.W.O.S.

PROPOSED WORKS SHEWN IN RED

COMPLETED WORKS SHEWN IN BLACK

LENGTH COMPLETED TO 30TH JUNE 1897 = 968 FT



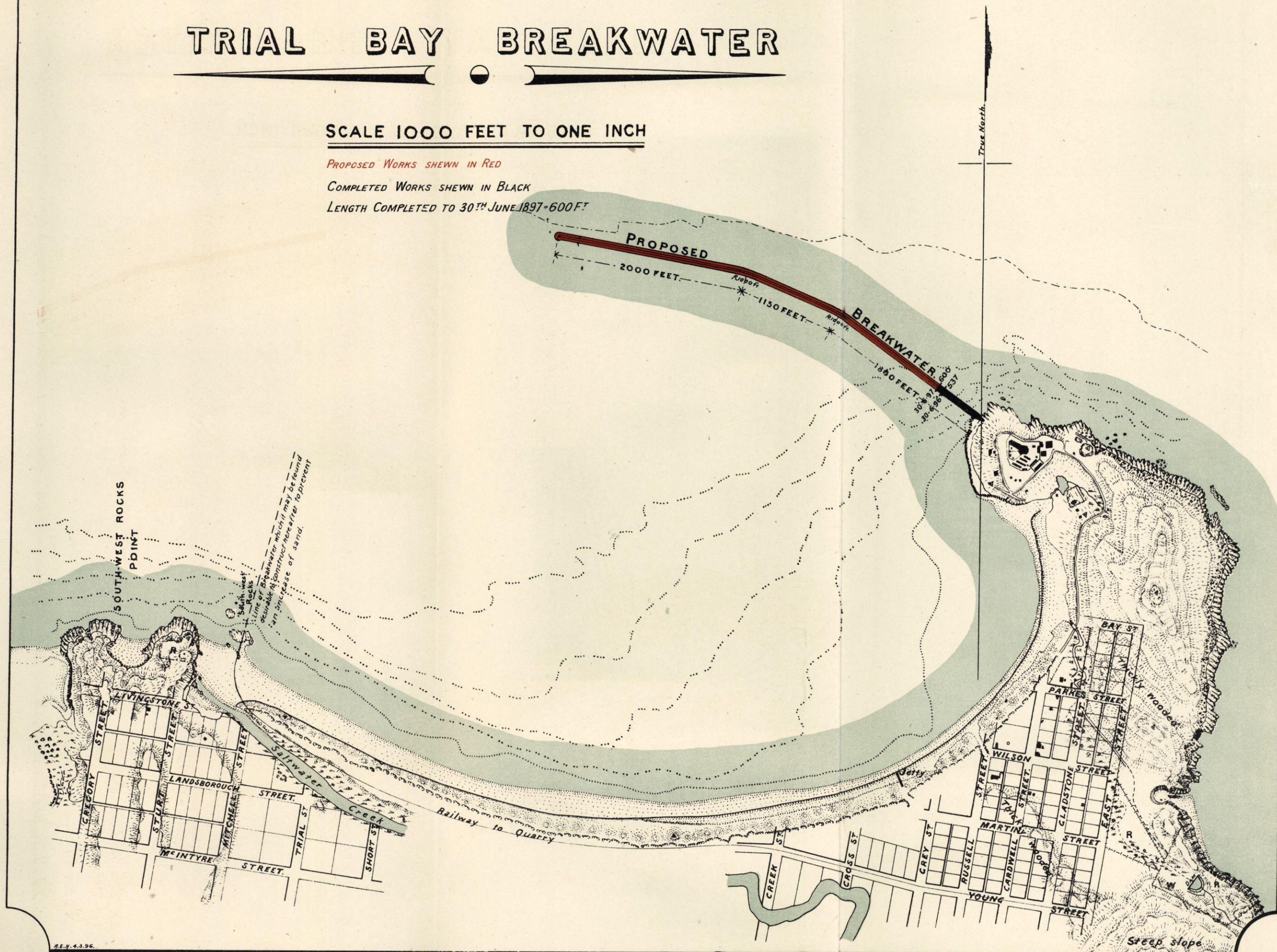
TRIAL BAY BREAKWATER

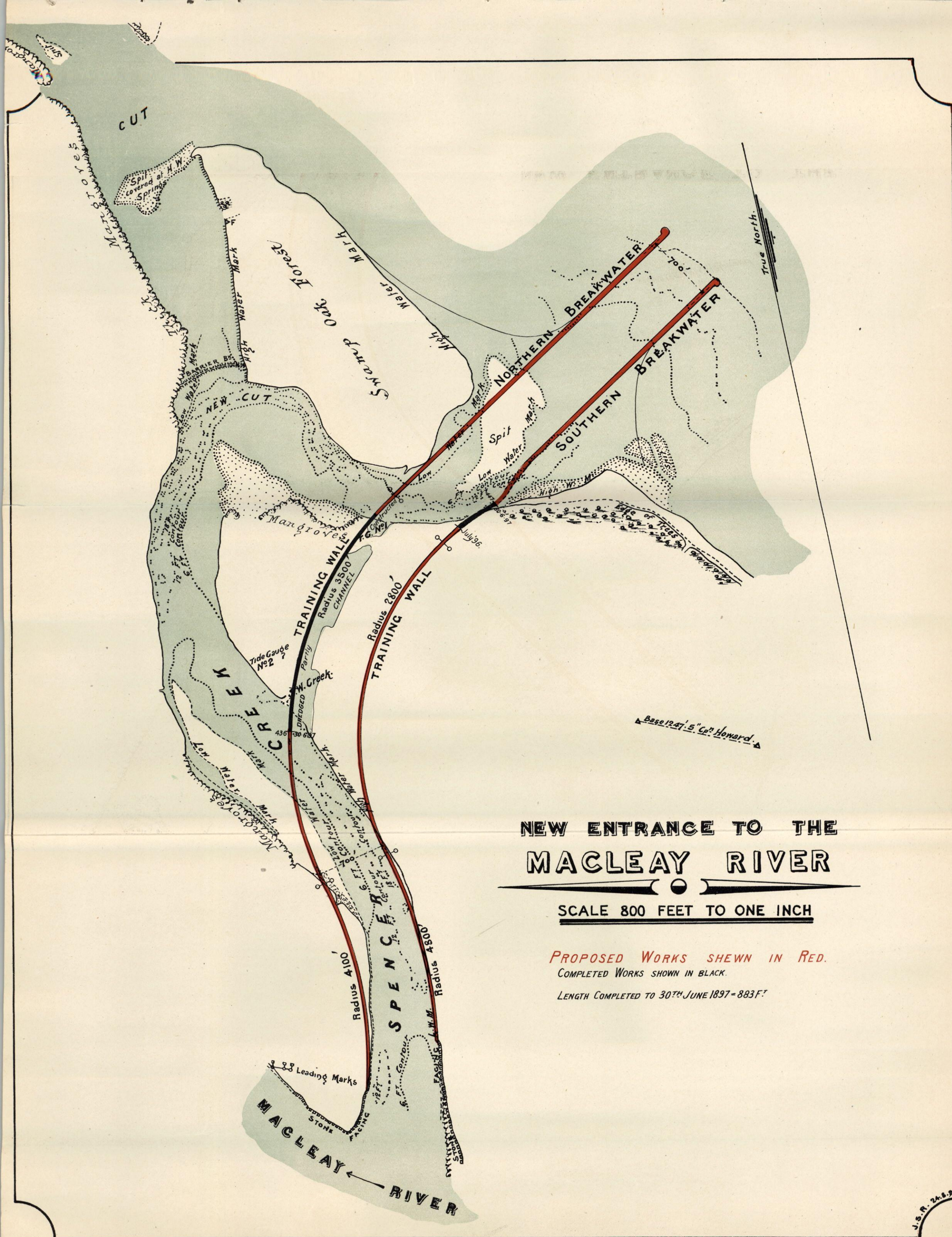
SCALE 1000 FEET TO ONE INCH

PROPOSED WORKS SHEWN IN RED

COMPLETED WORKS SHEWN IN BLACK

LENGTH COMPLETED TO 30TH JUNE 1897 = 600 FT





NEW ENTRANCE TO THE MACLEAY RIVER

SCALE 800 FEET TO ONE INCH

PROPOSED WORKS SHEWN IN RED.
COMPLETED WORKS SHOWN IN BLACK.

LENGTH COMPLETED TO 30TH JUNE 1897-883F.

