Educational (1896) Department.

ORDINARY MS.

G.O., No. 130

Dated 5th March 1896

INDEXED.

[Despatch Abstract.]

DRAUGHTSMEN EMPLOYED IN THE TANK RESTORATION SCHEME.

Disapproving of the proposal to change the designation of certain appointments in the Tank Restoration Scheme from "draughtsmen" to "tracer", but stating that Government will consider individually the cases in which there is difficulty in obtaining draughtsmen.

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
GA 4/97	44	Ed	21-1-97				

1896. 117

Pub Ser Notfn

Public Works Department.

Ed

No. 501 C

Dated 29-1-1896

Despatched

Received 30th

CHIEF SECRETARY GOVERNMENT OF MADRAS 30 JAN. 1896

Encl 1

SUBJECT.

Returning office note from the Chief Engineer for Irrigation requesting that the designation of appointments of draftsman on Rs 15-0-0 per mensem in the T. R. Scheme may be altered to tracer.

Final

Please put up GO 455 / 30-5-95 Ed

NB 18/2

50—2,000—21-12-94.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

READ—the following papers :—

G.O., dated 22nd July 1895, No. 476, Revenue.

Read—the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 22nd March 1895, No. 77A :—

Read—the following paper :—

No. 68 E.W.

Note by the Chief Engineer for Irrigation.

The working of the Tank Restoration Scheme and the machinery employed for the repair and maintenance of Minor Works, Revenue Department, have been the subject of much correspondence both locally and with the Government of India. The Tank Restoration Scheme under the name of the Tank Maintenance Scheme was approved as a temporary establishment by the Government of India in letter No. 40 I., dated 26th January 1883, communicated with G.O., dated 12th February 1883, No. 143 I., and provided for bringing each minor work up to the standard of efficiency and providing proper weirs and sluices, without any reference to the future maintenance of works already brought up to the standard, which latter duty was proposed to be entrusted to the interested ryots.

2. So soon after the establishment of the scheme as 1885, Colonel J. Pennycuick, R.E., Superintendent of Works, Tank Maintenance Scheme, in paragraph 11 of letter No. 799 T., dated 16th April 1885, and printed with G.O., dated 5th May 1885, No. 421 I., reported as follows :—

"The investigations in the Madras drainage basin have been, to a considerable extent, retarded by the withdrawal of a portion of the establishment for emergent work in connection with the restoration of the Red Hills and Cholavaram tanks ; but a more important source of delay is the system by which the establishment employed on these investigations is classed as "temporary" and filled, with but few exceptions, by men not on the regular staff of the department. The supposed economy of the employment of temporary establishments for permanent work (and a work estimated to last fifty years may fairly be called permanent) is altogether illusory, and the work cannot, and will not, be done satisfactorily until the divisions concerned are included in, and manned from, the permanent establishment of the department."

Again, in letter to the Government of India, No. 2611 W., dated 4th October 1887, Colonel J. O. Hasted, R.E., remarked—"the work, moreover, must take so many years to complete that it cannot be considered temporary."

3. In G.O., No. 359 I., dated 2nd August 1889, the Madras Government recorded its opinion that the experiment of handing over the maintenance of tanks in the Periyakulam Minor basin to the villagers must be abandoned, and in para. 17 of Proceedings of the Government of India, dated 1st March 1890, No. 41 I., printed with G.O., dated 26th March 1890, No. 199 I., the Government of India remarked :—

"It is also a question for serious and immediate consideration whether the whole system on which the Tank Restoration Scheme is based will not have to be modified. No mention is made of the fact in the report, but it is observed from Proceedings, No. 359-I., dated 2nd August 1889, that in the case of the Periyakulam Minor basin, which was handed over to the care of the villagers in 1888, they have refused to undertake the maintenance of the tanks on the terms offered, and the opinion of the Government of Madras is that the experiment must be abandoned. In lieu it is proposed to entrust the maintenance of minor tanks to the Revenue officers, the cost being met from the grant for Minor Irrigation Works, while tanks irrigating less than 15 acres are to be made over to the villagers on some special terms, which it is believed means a fixed dry assessment. A full and early report on this subject should be submitted, as it is useless to continue to spend large sums on investigating and estimating for the requirements of works which the villagers refuse to, and the Public Works Department cannot, maintain."

This reference was replied to by the Chief Engineer for Irrigation in note printed in G.O., dated 21st May 1890, No. 294 I., and in letter to the Government of India printed with G.O., dated 21st May 1890, No. 295 I. His Excellency in Council informed that Government that his views were in general accord with those expressed by the Chief Engineer for Irrigation, and that he saw no reason for any considerable modification of the general scheme of tank restoration.

4. The Government of India being still dissatisfied with the arrangements made for the restoration and maintenance of Minor Irrigation Works, requested that the modified scheme of tank restoration suggested in letter, No. 143 I., dated 9th September 1890, might be worked out, and Government in G.O., dated 28th October 1890, No. 838, Revenue, requested the Board of Revenue to report on the proposals of the Government of India to abandon all tanks irrigating 50 acres or less.

5. This reference to the Board of Revenue was replied to in Proceedings, dated 14th November 1893, No. 452, in which the Board reported the impossibility, from a financial point of view, of abandoning these tanks, and Government in G.O., dated 13th April 1894, No. 260, Revenue, approved, with certain modifications, the Board's conclusions. Meanwhile the terms of the Provincial contract were altered, and in G.O., dated 27th May 1892, No. 499 I., Public Works, the information called for regarding the financial effect of abandoning tanks irrigating less than 50 acres was declared to be no longer required.

6. This closed the correspondence with the Government of India, and it will be observed that nothing has so far been done either to put the Tank Restoration Scheme on a satisfactory basis, or to provide efficient machinery for the maintenance of Minor Irrigation Works, Revenue Department. The Tank Restoration Scheme is still a temporary establishment, with an ever-changing staff, and Minor Irrigation Works are left to the care of Collectors who have no proper establishment working under them, and to do the required work either systematically or efficiently seems to be an impossibility.

7. The scheme now put forward is an attempt to provide efficient machinery for the restoration and maintenance of minor works, and involves—

(*a*) a permanent Tank Restoration office in Madras with parties working in the districts;

(*b*) a permanent trained establishment under Collectors for the maintenance of minor irrigation works.

8. The following explains the general working of the scheme:—

(*a*) The permanent Tank Restoration establishment to be under the orders of the Chief Engineer for Irrigation and to prepare maps and descriptive memoirs, collect the necessary hydraulic information, and prepare estimates for the restoration of tanks. This duty is now performed by the Tank Restoration Scheme, and the only change proposed is the substitution of permanent for temporary establishment, chiefly on the score of efficiency, but also for economy. The Tank Restoration Scheme has now been in existence for twelve years out of the 55 years which its work was originally estimated to last, and there is but little probability that this estimate will prove to have been an exaggeration, as many of the more important irrigation (tank) districts are as yet practically untouched. The establishment being temporary, men cannot be induced to continue in it, but join merely with the object of learning practical work, and after a few years', in many cases a few months' experience, resign for permanent appointment elsewhere, often in Native States. So much is this the case that there are at present only four passed surveyors and one passed draftsman in the Tank Restoration Scheme parties of over three years' service. As it is quite impossible to work the scheme satisfactorily under these conditions, the necessity of making the establishment permanent seems evident.

9. Statement No. 1 shows the financial result of the proposed change. It will be observed that the net result, including pension charges, is a saving of Rs. 3,617 per annum, after taking into account the leave and pension allowance for the permanent establishment, which is effected by substituting Lower Subordinates on the permanent establishment for the existing staff of overseers and surveyors. With permanent

Lower Subordinates who have something to lose by being reduced or dismissed, it is believed that a better outturn of work both in quality and quantity will be ensured, and that instances of false and incorrect levels will not be so frequent as they now are.

10. (*b*). The second part of the scheme is an attempt to provide for the maintenance of Minor Irrigation Works, Revenue Department. The present custom is for the Collector to engage establishment on Government sanction up to a limit of 16 per cent. of the grant for each district (*vide* G.O., dated 11th December 1883, No. 1549, Revenue), and to prepare plans and estimates, and to execute all maintenance works such as earthwork and masonry repairs, while the Public Works Department are expected to assist the Revenue officers in all cases where an alteration of existing works involving a change in sluice levels or the discharging power of calingulahs, or where professional skill is required. Executive Engineers have not sufficient establishment to do more than supervise their own works, and in nearly every district the investigation of projects is delayed for want of establishment. They do not and cannot, therefore, comply with requisitions from Collectors without great delay, and no one probably knows better than a Collector or an Executive Engineer the amount of trouble and friction which such requisitions involve. An important feature in the proposed scheme is, therefore, the relief of Executive Engineers from any obligation to give their advice to Collectors except on a requisition from the Chief Engineer for Irrigation.

11. In the proposals now made the Collectors will be given one Upper and several Lower Subordinates who have previously had a training in the Tank Restoration Scheme to prepare estimates and carry out work under the supervision of the Revenue officers, the duty of the Upper Subordinate being to check the work of the Lower when called upon to do so by the Collector, in addition to supervising a small charge of his own.

12. All estimates when prepared and approved by the Collector will be submitted to the Chief Engineer for Irrigation, Tank Restoration Scheme, in just the same way as an ordinary Tank Restoration Scheme estimate. The Chief Engineer will see that the designs are suitable and that no deviation from the standard laid down in the Tank Restoration Scheme descriptive memoirs and plates is allowed without sufficient reason, and will return the estimates to the Collector for execution, communicating every month a list of sanctions to the Board of Revenue. Under this scheme, the Board of Revenue will still continue to manage the budget and distribution of funds, and the Collectors, with their establishment, will select the works to be taken up, and will carry them out as they now do. All that the Chief Engineer for Irrigation will do will be to deal with estimates in the Tank Restoration Scheme instead of in the Irrigation office, and seeing that Collectors will have an establishment who have been previously trained in the Tank Restoration Scheme there is a probability that the plans and estimates will be better prepared and the work more efficiently executed than is now the case.

13. Statement No. 2 shows roughly the cost of the proposed establishment, but, as it has been prepared on insufficient data, will probably require considerable modification.

14. Taken as a whole, it will be observed that the cost of the proposed establishment for the Tank Restoration Scheme, including the establishment proposed to be placed under Collectors, is Rs. 1,14,907 against a sanctioned scale of Rs. 53,604 for the Tank Restoration Scheme and Rs. 27,055 for Revenue establishment. The area irrigated by all works which have been, or will be, dealt with by the Tank Restoration Scheme is 3,220,877 acres bringing in a revenue of Rs. 78,28,923, of which the area irrigated by Minor Works, Revenue Department, is 1,727,594 acres, Revenue Rs. 37,56,853. The proposed establishment for both Tank Restoration Scheme and Revenue is therefore 1·47 per cent. per annum on the revenue; that for the Tank Restoration Scheme is 0·57 per cent. on the revenue from all minor works, and that for the Revenue Department 1·87 per cent. on the revenue for Minor Works, Revenue Department.

15. As the transfer of the existing Tank Restoration Scheme establishment from temporary to permanent will result in a saving to Government of Rs 3,617 per annum as stated in paragraph 9, and is much needed in the interests of efficiency, it is requested that the accompanying proposition statement may be sanctioned at a

sufficiently early date to permit of the proposed change being introduced on the 31st March 1895. The work of selecting men for the permanent appointments will take some time, as it is probable that a better class of men can be secured than some of the existing temporary establishment.

16. The Chief Engineer for Irrigation wishes it to be understood that the proposed reduction in the pay and numbers of the existing Tank Restoration Scheme staff is only possible if the establishment is sanctioned as permanent.

17. The introduction of the proposed change in the establishment for Minor Works, Revenue Department, cannot probably be provided at once. It is suggested that the change should be made gradually, those districts in which Tank Restoration Scheme investigation is well advanced being first provided for.

18. It will be observed that no additional establishment has been provided in the Tank Restoration Scheme head office for the scrutiny of estimates and plans from Collectors. It is possible that an additional clerk on Rs. 25 and a draftsman on Rupees 30 may be required, but it is not worthwhile providing for them until the necessity has been proved, as it is not proposed that the Tank Restoration Scheme head office should be responsible for mere arithmetical check but only for the general suitability of estimates and designs.

19. In addition to the permanent establishment required for the Tank Restoration Scheme, four temporary lascars will be required for each sub-overseer. The men may be charged to works in some localities where daily paid men can be obtained, but as a rule must be charged to establishment, temporary.

20. When comparing the cost of existing and proposed establishment for the Tank Restoration Scheme the sanctioned scale of Executive Engineers has been omitted, as it is believed that the Tank Restoration Scheme can be worked satisfactorily with selected Upper Subordinates.

MADRAS, 19th Dec. 1894. (Signed) R. R. E. DRAKE-BROCKMAN, Colonel, R.E., Chief Engineer for Irrigation.

To the Chief Engineer, Public Works Department.

Resolution—dated 22nd March 1895, No. 77A.

In his note forwarded with the endorsement read above, the Chief Engineer for Irrigation proposes a scheme for providing efficient machinery—

(*a*) for the restoration of all tanks in charge of the Public Works, as well as of the Revenue, Department, which fall under the category of minor works for which Capital and Revenue accounts are not kept; and

(*b*) for the maintenance of minor irrigation works in charge of the Revenue Department.

2. The Board presumes that it is not called upon to give an opinion on the first portion of the scheme, which consists in replacing the existing temporary establishments of the Tank Restoration Scheme by a permanent staff, on slightly reduced pay. This measure is recommended on grounds of efficiency as well as of economy, and there can be little doubt but that the substitution of permanent, for temporary establishments, will result in a decided improvement in the quality of work turned out.

3. In the second part of his scheme, the Chief Engineer proposes to provide each Collector with a permanent staff of Upper and Lower Subordinates, who have previously had a training in the Tank Restoration Scheme Parties, to prepare estimates and carry out work under the supervision of the Revenue officers, the duty of the Upper Subordinate being to check the work of the Lower when called upon to do so by the Collector, in addition to supervising a small charge of his own. The existing arrangements regarding budget estimates and the distribution of funds by the Board of Revenue, and the selection of works for annual repairs by the Collector, will not be disturbed; but every estimate will be submitted by the Collector for sanction to the Chief Engineer for Irrigation, Tank Restoration Scheme, in the same way as an ordinary Tank Restoration Scheme estimate is; and the latter officer will return it, after approval, to the Collector for execution, communicating a list of sanctions every

month to the Board of Revenue. The change in the establishments will be effected gradually, those districts in which Tank Restoration Scheme investigation is well advanced, being first provided for.

4. Under the present system, all petty repairs are estimated for, and executed by, Tahsildars, or Revenue Inspectors, with the assistance of a small staff of low-paid Minor Irrigation overseers and maistries—mostly men of little or no training; and the help of the Public Works Department is sought only in cases requiring professional skill. When the duty of maintaining minor works irrigating less than 200 acres was transferred to the Revenue Department, all that it was expected to do was to keep them in ordinarily good repair; and the Public Works Department was understood to be generally responsible for the provision of new masonry sluices and calingulahs, and the reconstruction of ruined and abandoned tanks. All work of this kind has of late been left more and more to the Revenue Department, and in paragraph 10, the Chief Engineer correctly points out how little is to be expected from the Executive Engineers in this direction, with the very inadequate establishments at their disposal. An attempt was made last year to improve matters, by the entertainment of professionally trained men, wherever possible, and by the issue of rules for the preparation of estimates for, and the execution of repairs to, minor irrigation works; but the pay fixed was not sufficient to attract qualified men. The order of Government, dated 23rd November 1886, No. 1029, restricting the cost of establishment to 15 per cent. of the annual outlay on works has also, in many districts, operated to prevent a properly qualified staff being entertained.

5. The irrigation works in charge of the Revenue Department are not less important financially than the minor works under the control of the Public Works Department, while the maintenance charges in respect of the former do not amount even to a third of the sum allotted for the latter; and the cost of establishment incurred by the Revenue Department is less than one-ninth that of the Public Works Department, as will be seen from the subjoined statement:—

Years.	Public Works Department.				Revenue Department.			
	First crop.	Second crop.	Revenue.	Total expenditure including establishment, tools and plant.	First crop.	Second crop.	Revenue.	Expenditure including establishment, tools and plant.
1	2	3	4	5	6	7	8	9
	ACS.	ACS.	RS.	RS.	ACS.	ACS.	RS.	RS.
1889-90	959,862	286,430	32,97,010	12,52,123	1,323,279	408,945	38,73,472	3,58,407
1890-91	836,053	245,201	26,33,237	14,64,813	1,070,775	365,184	29,43,006	4,08,784
1891-92	838,584	218,259	25,48,886	10,84,406	1,128,489	321,693	29,20,372	5,44,593
1892-93	956,630	309,841	32,95,101	13,74,851	1,276,817	450,777	37,56,853	4,34,520
1893-94	1,053,234	353,510	38,39,543	13,27,979	1,401,504	530,035	44,20,607	3,41,330
Average ..	928,873	282,648	31,22,755	13,00,833	1,240,173	415,327	35,82,862	4,17,527

Years.	Establishment, &c., charges.					
	Public Works Department.	Revenue Department	Percentage on outlay.		Percentage on Revenue.	
			Public Works Department.	Revenue Department	Public Works Department.	Revenue Department.
	10	11	12	13	14	15
	RS.	RS.				
1889-90	3,07,508	27,331	32·55	8·26	9·39	0·71
1890-91	3,33,686	30,697	29·50	8·12	12·67	1·04
1891-92	2,13,305	32,408	24·49	6·33	8·37	1·11
1892-93	3,08,628	40,440	28·95	10·26	9·37	1·08
1893-94	3,11,857	29,430	30·69	9·44	8·12	0·67
Average ..	2,94,997	32,061	29·33	8·32	9·45	0·89

The large revenue now being realized from the minor irrigation works in charge of the Revenue Department may certainly be increased very considerably if more money be judiciously spent on them. But increased grants cannot be properly utilized until the Revenue Department can command a sufficiently strong and competent staff to work them out, and the Public Works Department is unable to render the necessary help.

6. In these circumstances, the Board cordially supports the proposal of the Chief Engineer to provide a permanent staff of trained men to look after the maintenance of minor irrigation works under the orders of the Revenue officers. It is observed, however, that the rough estimate of the staff, given in statement No. 2 appended to the Chief Engineer's note, is based mainly on the area irrigated, and the amount of irrigation revenue, in each district, and takes no account of the number of irrigation works in each taluk, their situation (whether scattered or otherwise), their size and importance. In some districts, the cost of the proposed staff greatly exceeds half the average annual outlay on the works. The Board has prepared a separate statement, showing the establishment it would propose for each district, with reference to the number of works in each taluk, the area under irrigation, the revenue derived, and the average expenditure annually incurred on their maintenance. The Collectors concerned will be requested to favour the Board with their opinion as to the adequacy of the proposed establishment. The total cost, it will be observed, amounts to Rs. 61,380 per annum, or 14·37 per cent. on the average outlay incurred during the three years ending 1893–94, and Rs. 3,540 less than the cost of the staff proposed by the Chief Engineer. Adding Rs. 8,400 on account of the pay of lascars, at one lascar on Rs. 7 a month, to each Upper and Lower Subordinate, the annual cost of the establishment proposed by the Board will be raised to Rs. 69,780, or Rs. 70,000 in round numbers. This will amount to about 16·3 per cent. on the average outlay mentioned above. On the average minor irrigation revenue for the last five years, the cost will be only 1·9 per cent. The proposed expenditure seems to be very moderate, and is still much below what is incurred by the Public Works Department for the same class of works under its management.

7. Owing to the difficulty of obtaining duly qualified men, the change in the establishment can, it is said, be made only gradually, and the Chief Engineer proposes to provide, in the first instance, for those districts in which the Tank Restoration Scheme investigation is well advanced. The Board understands that the Tank Restoration operations have so far been extended to the marginally noted districts, but that in several of these, the progress made is very small. The districts, where the work has been completed, or nearly so, by the Tank Restoration Scheme Parties, may, of course, be served first, but every endeavour should, the Board thinks, be made to supply, within the next year or two, trained men to all the districts in which there are minor irrigation works.

1. Vizagapatam.
2. Gódávari.
3. Kistna.
4. Kurnool.
5. Cuddapah.
6. Bellary.
7. Anantapur.
8. Salem.
9. Coimbatore.
10. North Arcot.
11. South Arcot.
12. Chingleput.
13. Madura.
14. Tinnevelly.
15. Tanjore (Pattukkóttai taluk only).

8. The only other point in the Chief Engineer's scheme on which the Board desires to offer any remark, is the proposal that every estimate should be submitted to him for sanction. Nearly 1,600 estimates are at present prepared by the Revenue Department annually, and under the new arrangements a much larger number may be expected, at least in the beginning. Most of these will be pouring in at about the same time from all districts; and it seems likely that the examination of such a large number of estimates (even omitting all arithmetical check) by a Central office at Madras may unduly delay the execution of the works. The estimates in many cases will relate only to petty earthwork repairs, and this will especially be the case in the minor basins in which investigations by Tank Restoration Scheme Parties have been completed and their estimates worked out. It is, therefore, a question for consideration, whether the submission of estimates to the Chief Engineer may not be restricted to

cases in which a deviation from the standards laid down by the Tank Restoration Scheme Parties, or any structural alteration in masonry works, is proposed, or in which the cost exceeds a certain limit, say Rs. 250.

(True Copy and Extract.)

(Signed) P. RAJARATNA MUDALIAR,
Secretary.

To the Secretary to Government, Revenue Department,
with three statements in original.
„ Collectors of all districts, except Madras, the Nilgiris,
Malabar and South Canara.
„ Chief Engineer for Irrigation.

APPENDIX.

Districts.	Number of talaks.	Number of minor irrigation works under charge of Revenue officers.	Area irrigated in 1893-94, 1st and 2nd crop.	Share of revenue due to irrigation, 1893-94.	Average expenditure during three years ending 1893-94.	Sanctioned grant for 1894-95 revised up to date.	Establishment as revised by the Board. Number on Rs. 135	Rs. 100	Rs. 80	Rs. 60	Rs. 40	Rs. 30	Total cost. Monthly.	Total cost. Annual.	Percentage, columns 15 & 6.	Percentage on irrigation revenue, columns 15 and 5.	Remarks.
			Acr.	rs.	rs.	rs.							rs.	rs.			
Ganjám	3	2,748	81,313	86,976	16,138	15,000	..	..	..	..	2	1	210	2,520	15·62	2·90	In five talaks there are no works; in four the number is less than 50; in two more less than 100.
Vizagapatam	3	1,275	104,974	1,47,904	11,772	13,000	..	1	..	..	1	2	200	2,400	20·39	1·63	
Gódávari	14	1,322	58,814	84,836	11,744	12,000	..	..	..	..	1	2	200	2,400	20·44	2·83	
Kistna	12	361	28,552	93,572	16,915	7,300	..	1	..	..	..	2	200	2,400	15·08	2·66	In three taluks there are no works; in four the number is less than 50; in none is the number over 74.
Nellore	9	389	39,896	1,13,757	29,891	17,588	..	..	..	2	4	4	300	3,600	12·04	3·16	In six taluks the number of works is less than 50; in the rest less than 100.
Cuddapah	11	2,648	210,705	5,13,789	37,426	21,400	1	..	1	1	2	3	445	5,340	14·27	1·04	In two taluks the number is 25 or less; in two more less than 100; in three others less than 200 each.
Kurnool	8	603	35,209	97,485	9,875	6,138	..	..	..	..	..	3	210	2,520	25·52	2·59	In three taluks the number is less than 50; in four others it is between 50 and 78.
Bellary	8	243	37,460	89,705	3,528	7,000	..	..	..	1	..	3	170	2,040	56·23	2·27	In five taluks the number is less than 20 each. The number nowhere exceeds 70.
Anantapur	7	2,042	93,953	2,44,417	16,820	24,000	..	1	..	1	1	2	260	3,120	18·55	1·28	In one taluk the number is 55.
Salem	9	2,536	152,859	2,66,249	17,236	14,732	1	..	..	1	1	3	325	3,900	22·63	1·47	
Coimbatore	10	96	18,339	46,574	3,456	3,500	..	..	..	1	..	1	90	1,080	31·25	2·32	The extent shown in column 4 includes a large area under channels, jungle streams not maintained at the cost of Government.
North Arcot	9	3,356	253,733	6,45,069	59,572	50,000	1	..	..	1	2	4	475	5,700	9·67	0·88	
South Arcot	8	2,823	247,054	7,40,578	46,994	67,500	1	..	..	1	2	3	445	5,340	11·36	0·72	
Chingleput	6	2,039	180,761	7,82,249	42,877	40,000	1	..	..	1	2	2	415	4,980	11·61	1·76	
Tanjore	9	601	39,810	82,335	9,714	6,280	..	..	..	1	..	2	140	1,680	17·29	2·04	The works are confined chiefly to two taluks—Tanjore and Pattukkóttai.
Trichinopoly	5	989	70,639	1,11,335	16,253	17,000	..	1	..	..	1	2	200	2,400	14·77	2·16	
Madura	6	5,472	144,850	3,48,085	27,248	22,432	1	..	..	1	1	4	355	4,260	15·63	1·22	
Tinnevelly	9	1,798	133,198	4,26,692	50,551	55,000	1	..	..	1	2	4	475	5,700	11·28	1·34	
Total ...	146	31,336	1,931,589	44,20,607	4,27,110	3,99,870	7	7	8	9	22	47	5,115	61,380	14·37	1·39	

Order—dated 22nd July 1895, No. 476, Revenue.

Irrigation No. 8.

Transferred to the Public Works Department with the following remarks:—

(i) The establishments proposed by the Board of Revenue for the maintenance of the works in charge of the Revenue Department are approved, subject to such modifications as may be considered necessary, on the receipt of the reports which the Board has called for from Collectors. It is also necessary to attach a lascar to each Upper and Lower Subordinate.

(ii) The total annual cost of the establishments is Rs. 69,780, or 17·3 per cent. of the average outlay.* on works during the three years ending 1893–94. The above figure will probably have to be modified slightly, as in calculating the cost the Board has taken the pay of the lascars at Rs. 7 per mensem, while the Chief Engineer for Irrigation apparently considers that lascars can be had for Rs. 6 per mensem for the tank restoration parties (*vide* his proposition statement).

* *i.e.*, exclusive of establishment, &c., charges. The percentage (16·3) given by the Board is calculated on the total expenditure.

(iii) It is desirable that all districts should be supplied with the new establishments within the next year or two, if possible, the districts where the tank restoration work is completed or nearly so being served first.

(iv) The suggestion in paragraph 8 of the Board's Proceedings as to the classes of estimates to be submitted to the Chief Engineer is approved.

2. The most economical plan of executing tank repairs is to entrust them to the headmen and villagers whose interest it is to see that the sanctioned grants are actually spent on the works, and the Government is of opinion that the new scheme should not in any way interfere with the present practice of giving contracts for works which do not involve skilled labour to the villagers concerned.

(True Extract.)

(Signed) E. GIBSON,
Secretary to Government.

To the Public Works Department (Irrigation Branch).
„ the Board of Revenue (Revenue Settlement, Land Records and Agriculture).

Office-note from the Chief Engineer for Irrigation, dated 21st August 1895, No. 210.

Herewith G.O., dated 22nd July 1895, No. 476, Revenue, which should apparently have been sent to you.

2. I shall be glad if you will obtain the early sanction of Government to that part of the scheme which provides for making the Tank Restoration Scheme permanent as it is desirable that the re-organization should be carried out at once to enable me to separate those parties which are now working together, in order to provide a party for the Nellore district, where its services are urgently required.

3. The proposition statement which accompanied my office-note printed with the Government Order under reference has been revised, as it was apparently not in the proper form and included Upper Subordinate Establishment which should apparently be omitted.

4. In the revised proposition statement two alterations have been made—

(*a*) The pay of one tracer has been increased to Rs. 15 as this man is doing excellent work in the preparation of maps to accompany the descriptive memoirs. His work is much superior, both in class and quality to that of the other tracers, who merely make tracings of drawings.

(*b*) A personal allowance of Rs. 20 has been allowed for Draughtsman Mr. Thomas, as he is at present in receipt of Rs. 70 per mensem and to reduce him to Rs. 50 is considered to be too great a reduction as he has long service in the Tank Restoration Scheme.

5. I shall be glad if the existing temporary establishment can be sanctioned up to the end of September and the permanent establishment from that date.

6. One result of the re-organization will be that four overseers (two permanent and two temporary) will be available for transfer elsewhere and in their place two supervisors will be required to take charge of parties. It will be convenient if these supervisors can be placed at my disposal as early in September as possible in order that there may be no delay in starting the parties with permanent establishment in October.

7. As regards paragraph 1 of the Government Order above referred to, I would suggest that further information from the Revenue Department should be awaited, as the Board of Revenue are still in correspondence with this office regarding the proposed Revenue Department Establishment.

STATEMENT showing the scale of establishment in the Tank Restoration Scheme as at present sanctioned and the proposed scale substituting Sub-overseers for surveyors.

Order sanctioning present establishment, Government of Madras, Public Works Department.		Office to which the proposition statement refers.	Nature of changes.	Proposition.																
								Permanent.				Temporary.								
				Proposed scale.								Increase per month.		Decrease per month.		Increase per month.		Decrease per month.		
No.	Date.			No.	Designation.	Pay. Minimum.	Pay. Increment.	Pay. Maximum.	Pay. Average or fixed.	Total cost.	Amount.	Amount.	Amount.	Period.	Amount.	Period.	Amount.	
711 W.	13th March 1894.	Head office.		1	Clerk	Rs.			Rs. 150		Rs. 150			MON.				Rs. 200
				1	Do.				80		80							200
				1	Do.				40		40							80
				1	Do.				35		35							40
				1	Do.				20		20							35
				1	Draughtsman				17		17							20
				1	Do.				115		115							17
				1	Do.				70		70							115
				1	Draughtsmen at Rs. 30 each				40		40							70
				2	Do. at ,, 25 ,,				60		60							40
				2	Draughtsmen at Rs. 15 and 4 on Rs. 12 each				50		50							60
				5					63		63							50
				1	Moochi				12		12							61
				1	Head peon				10		10							12
				2	Peons on Rs. 7 each				14		14							10
				1	Waterman				1		1							14
					Total per mensem				777		776							824
					Total per annum				9,324		9,312							9,888
				1	Clerk				30		30							35
				1	Do.				20		20							25
				1	Draughtsman				50		50							50
				1	Do.				30		30							35
				1	Do.				15		15							25
																		250
				1	Peon				7									
				6	Peons at Rs. 6 each				36		43							56
				16	Lascars on Rs. 6 each				96									
					Total per mensem				284		188							476
					Total per annum				3,408		2,256							5,712

Order sanctioning present establishment, Government of Madras, Public Works Department.		Office to which the proposition statement refers.	Present scale.							
						Pay.				
No.	Date.		No.	Designation.	Minimum.	Increment.	Maximum.	Average or fixed.	Total cost.	Nature of changes.
711 W.	13th March 1894.	Head office.	1	Clerk				Rs. 200		
			1	Do.				80		
			1	Do.				40		
			1	Do.				35		
			1	Do.				20		
			1	Draughtsman				17		
			1	Do.				115		
			1	Do.				70		
			2	Draughtsmen at Rs. 30 each				40		
			2	Do. at ,, 25 ,,				60		
			1	Tracer				50		
			4	Tracers at Rs. 12 each				13		
			1	Moochi				48		
			1	Head peon				12		
			2	Peons on Rs. 7 each				10		
			1	Waterman				14		
				Total per mensem				1		
				Total per annum				825		
		No. I Party.	1	Clerk				9,900		
			1	Do.				35		
			1	Draughtsman				25		
			1	Do.				50		
			1	Do.				35		
			1	Surveyor on Rs. 80				25		
			2	Do. at ,, 60 each						
			1	Do. at ,, 50 ,,				250		
			25	Lascars, 1 at ,, 8 and 24 at Rs. 6 each				152		
				Total per mensem				572		
				Total per annum				6,864		

Statement showing the scale of establishment in the Tank Restoration Scheme as at present sanctioned and the proposed scale substituting, &c.—*cont.*

Order sanctioning present establishment, Government of Madras, Public Works Department.		Office to which the proposition statement refers.	Nature of changes.																			
			Present scale.							Proposed scale.								Proposition.				
																		Permanent.		Temporary.		
																		Increase per month.	Decrease per month.	Increase per month.	Decrease per month.	
					Pay.							Pay.										
No.	Date.		No.	Designation.	Minimum.	Increment.	Maximum.	Average or fixed.	Total cost.	No.	Designation.	Minimum.	Increment.	Maximum.	Average or fixed.	Total cost.	Amount.	Amount.	Period.	Amount.	Period.	Amount.
								Rs.							Rs.		Rs.					Rs.
		No. II Party.	1	Clerk	..	..	..	40	..	1	Clerk	..	..	..	30	..	30	..	..	..	..	40
			1	Do.	..	..	..	25	..	1	Do.	..	..	..	20	..	20	..	..	..	..	25
			1	Draughtsman	..	..	..	70	..	1	Draughtsman	..	..	..	70	..	70	..	..	..	..	70
			1	Do.	..	..	..	30	..	1	Do.	..	..	..	30	..	30	..	..	..	..	30
			1	Do.	..	..	..	25	..	1	Do.	..	..	..	15	..	15	..	..	..	..	25
			1	Surveyor on Rs. 80	..	..	..	240	..	..	..	..	..	..	..	..	..	..	..	..	..	240
			1	Do. on ,, 60	..	..	..															
			2	Surveyors at ,, 50 each	..	..	..															
			23	Lascars, 1 at ,, 8 and 22 at Rs. 6 each	..	..	..	140	..	1	Peon	..	..	..	7	..	43	..	..	..	..	44
				....	..	..	..	..	..	6	Peons at Rs. 6 each	..	..	..	36	..						
										16	Lascars on Rs. 6 each	..	..	..	96	..						
				Total per mensem	..	..	..	570	..		Total per mensem	..	..	..	304	..	208	..	..	..	..	474
				Total per annum	..	..	..	6,840	..		Total per annum	..	..	..	3,648	..	2,496	..	..	..	..	5,688
		No. III Party.	1	Clerk	..	..	..	35	..	1	Clerk	..	..	..	30	..	30	..	..	..	..	35
			1	Do.	..	..	..	25	..	1	Do.	..	..	..	20	..	20	..	..	..	..	25
			1	Draughtsman	..	..	..	50	..	1	Draughtsman	..	..	..	50	..	50	..	..	..	..	50
			1	Do.	..	..	..	35	..	1	Do.	..	..	..	30	..	30	..	..	..	..	35
			1	Do.	..	..	..	25	..	1	Do.	..	..	..	15	..	15	..	..	..	..	25
			1	Surveyor on Rs. 80	..	..	..	240	..	..	..	..	..	..	..	..	..	..	..	..	..	240
			1	Do. on ,, 60	..	..	..															
			2	Surveyors at ,, 50 each	..	..	..															
			23	Lascars, 1 at ,, 8 and 22 at Rs. 6 each	..	..	..	140	..	1	Peon on Rs. 7	..	..	..	7	..	43	..	..	..	..	44
			1	Sweeper	..	..	..	2	..	6	Peons at ,, 6 each	..	..	..	36	..						
				....	..	..	..	..	..	1	Sweeper	..	..	..	2	..						
										16	Lascars on Rs. 6 each	..	..	..	96	..						
				Total per mensem	..	..	..	552	..		Total per mensem	..	..	..	286	..	188	..	..	..	..	454
				Total per annum	..	..	..	6,624	..		Total per annum	..	..	..	6,432	..	2,256	..	..	..	..	5,448
117 W.	13th March 1895.	No. IV Party.	1	Clerk	..	..	..	35	..	1	Clerk	..	..	..	30	..	30	..	..	..	..	35
			1	Do.	..	..	..	25	..	1	Do.	..	..	..	20	..	20	..	..	..	..	25
			1	Draughtsman	..	..	..	60	..	1	Draughtsman	..	..	..	50	..	50	..	..	..	..	60
			1	Do.	..	..	..	30	..	1	Do.	..	..	..	30	..	30	..	..	..	..	30
			1	Do.	..	..	..	25	..	1	Do.	..	..	..	15	..	15	..	..	..	..	25
			1	Surveyor on Rs. 80	..	..	..	240	..	..	..	..	..	..	..	..	..	..	..	..	..	240
			1	Do. on ,, 60	..	..	..															
			2	Surveyors at ,, 50 each	..	..	..															
			25	Lascars, 1 at ,, 8 and 24 at Rs. 6 each	..	..	..	152	..	1	Peon	..	..	..	7	..	43	..	..	..	..	56
			1	Sweeper	..	..	..	2	..	6	Peons at Rs. 6 each	..	..	..	36	..						
				....	..	..	..	..	..	1	Sweeper	..	..	..	2	..						
										16	Lascars on Rs. 6 each	..	..	..	96	..						
				Total per mensem	..	..	..	569	..		Total per mensem	..	..	..	286	..	188	..	..	..	..	471
				Total per annum	..	..	..	6,828	..		Total per annum	..	..	..	3,432	..	2,256	..	..	..	..	5,652
		No. V Party.	1	Clerk	..	..	..	35	..	1	Clerk	..	..	..	30	..	30	..	..	..	..	35
			1	Do.	..	..	..	25	..	1	Do.	..	..	..	20	..	20	..	..	..	..	25
			1	Draughtsman	..	..	..	50	..	1	Draughtsman	..	..	..	50	..	50	..	..	..	..	50
			1	Do.	..	..	..	35	..	1	Do.	..	..	..	30	..	30	..	..	..	..	35
			1	Tracer	..	..	..	14	..	1	Do.	..	..	..	15	..	15	..	..	..	..	14
			1	Surveyor on Rs. 80	..	..	..	240	..	..	..	..	..	..	..	..	..	..	..	..	..	240
			1	Do. on ,, 60	..	..	..															
			2	Surveyors at ,, 50 each	..	..	..															
			23	Lascars, 1 at ,, 8 and 22 at Rs. 6 each	..	..	..	140	..	1	Peon	..	..	..	7	..	43	..	..	..	..	44
				....	..	..	..	..	..	6	Peons on Rs. 6 each	..	..	..	36	..						
										16	Lascars on Rs. 6 each	..	..	..	96	..						
				Total per mensem	..	..	..	539	..		Total per mensem	..	..	..	284	..	188	..	..	..	..	443
				Total per annum	..	..	..	6,468	..		Total per annum	..	..	..	3,408	..	2,256	..	..	..	..	5,316
										†	8 Sub-overseers, 1st grade	50	10	70	480	..	480	..	..	..	..	..
											8 Do. 2nd ,,	35	5	45	320	..	320	..	..	..	..	..
											4 Do. 3rd ,,	25	5	35	120	..	120	..	..	..	..	..
											Total per mensem	..	..	..	920	..	920	..	..	..	..	..
											Total per annum	..	..	..	11,040	..	11,040	..	..	..	..	..
				Grand Total per mensem	..	..	..	3,627	..		Grand Total per mensem	..	..	..	3,141	..	2,656	..	..	..	..	3,142
				Grand Total per annum	..	..	..	43,524	..		Grand Total per annum	..	..	..	37,692	..	31,872	..	..	..	..	37,704
											Net decrease per annum	..	..	..	..	..	..	..	..	..	..	5,832

* This includes a personal allowance of Rs. 20 to Mr. Thomas.

† The distribution of these men among the parties will be made by the Chief Engineer for Irrigation.

Note.—Block type entries show temporary establishments. The pay will be reduced to Rs. 50 as soon as Mr. Thomas can be provided with an appointment on Rs. 70 in the head office.

21st August 1895.

(Signed) R. R. E. DRAKE-BROCKMAN, Colonel, R.E.,
Chief Engineer for Irrigation.

Order—dated 29th August 1895, No. 2155 W., Public Works.

The revised proposition statement for establishment under the Public Works Department for tank restoration work, submitted by the Chief Engineer for Irrigation, is sanctioned.*

* Registered as Provincial No. 46 W. of 1895–96 and classified as establishment.

2. The existing establishment will be regarded as temporary up to the 30th September 1895. The "proposed scale" shows the establishment, permanent and temporary, as it will stand after that date.

3. The four overseers referred to in paragraph 6 of the note by the Chief Engineer for Irrigation will be transferred to the General Establishment, and they will be replaced by two upper subordinates of higher rank as soon as men can be made available.

4. Paragraph 7 of the note by the Chief Engineer for Irrigation will be considered in the Revenue Department.

(True Extract.)

(Signed) J. PENNYCUICK, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Chief Engineer for Irrigation.
" Superintending Engineers.
" the Examiner, Public Works Accounts.
" the Revenue Department, with original notes returned.

Exd. Shaik Karim.

Spare Copies

GENERAL
ESTABLISHMENT.

Govt. of {1895} Madras.

PUBLIC WORKS.

Dated August, 29th.

Read. *Encl.*

G.O., 29th Aug. 1895, No. 2155 W.

AUGUST.

Tank Restoration Works

The revised proposition statement for establishment under the Public Works Department for —, sanctioned, with remarks, the existing establishment being regarded as temporary up to the 30th September 1895.

Despatch
No. 117

T/II.—100—28-3-94.

GOVT. OF MADRAS. } 1896. { P. W. DEPT.

TANK RESTORATION SCHEME.

Madras, 16th January 1896.

OFFICE NOTE. 92.56.T.

To	From	Despatch Date.	Receipt Date.
to	E.E. T		

KEEP-WITH.

No. dated 189 .

appointment of a
The draftsman on Rs 15 allowed
for each of the T. R. S. parties
in the proposed scale of per-
-manent establishment em-
-bodied in G.O. no. 2155 W dated
29th August 1895 is intended to
provide for the employment of
a tracer to help the draftsman
in the party offices in making
tracings, copying plans &c.
and as it will always be
difficult

difficult to secure the services of qualified draftsmen to take up appointments on Rs 15, I request that the designation of the appointment may be altered from "draftsman" to "tracer"

[illegible]
for E1/T

117

No. 501 C d/29th January 1896

Referred to the Educational Department as the application falls, apparently, under the rules of that Department.

D. McW. Campbell St. C.R.E.
Jt. Secty to Govt P.W.D.

To
The Educational Dept. with a copy of G.O. 2155 W d/29 Aug 1895

R.S.

[illegible] 21-1-96

P. W. CURRENT No. 451

Recd: 17.1.96

Referred.

[G./25]
1,000—5-11-95

Ed DEPARTMENT

C. No. 117 of 96

FOR ORDERS.

Under art 4 (4) of the Public Service notification, candidates for the posts of Draftsman carrying pay of Rs 15 & upwards, must hold a certificate from the College of Engineering.

In the above current the Chief Engineer for Irrigation represents that it is always difficult to secure the services of qualified men for the posts of draftsman on Rs 15 and proposes to alter the designation of the draftsman's posts on Rs 15 in the Tank Restoration Scheme from 'draftsman' to 'tracer' so as to enable him to appoint unqualified men. But this alteration will only increase the difficulty of getting qualified men, for tracers on Rs 15 being Superior Servants, (Vide Arts. 434 & 435. C.S.R.) will be subject

to

The P.W.D. Go. 113/1861

to art 2 of the Public Service notification and will be required to have passed the matriculation Examn. & the Handwriting test before appointment.

The difficulty referred to by the C.E. for Irrigation can not be got over unless tracers as a class are exempted by Govt from the operation of the Examn. rules.

There are only five draftsman's posts on Rs 15 in the Tank Restoration Scheme and a general exemption in respect of these five seems to be uncalled for.

When there is actually a difficulty to secure a qualified draftsman, the relaxation of the rules may be ~~relaxed~~ considered as each case arises so as to permit the appointment of an unqualified man.

W 21.2.96

H.D.

Yes: the course suggested above seems the best. [signature] 24.2.96

7R
18/2

Change of designation of Appointments in the Tank Restoration Scheme

FOR ORDERS.

~~H. E. THE GOVERNOR.~~

~~THE HON'BLE MR. H. W. BLISS, C.I.E.~~

THE HON'BLE MR. J. GROSE, C.I.E.

Ex
J.G. 28/2/96

C 27/2

[G./24.]
500—12-12-95.

Ed. DEPARTMENT.

Papers to be read in proceedings:—

Again G.O., dated 189 , No.

Again G.O., dated 189 , No.

Current No. 117 of 1896, dated 29th Jany from the P.W.D.

" " , 189 , " , "

" " , 189 , " , "

ORDER. No. 130 d/5 March 96

The change of the designation 'draughtsman' into 'tracer' will hardly meet the difficulty referred to, as tracers drawing Rs 15 per mensem are superior servants under arts. 434 & 435 of the C.S.R. and will thus be required under art 2 of the Public Service notification to have passed the matriculation Examn. and the Handwriting test before appointment. The difficulty can no doubt be overcome by exempting tracers as a class from the operation of the Examn. rules, but the Govt is not prepared to grant such a general concession. Individual cases in which real difficulty in securing qualified draughtsmen clearly calls for a relaxation of the rules may however, as they arise, be forwarded for the consideration of Govt. (from orders)

W 2.3.96

J.G. 4.3.-6. [illegible]

7R
2/3

To The P.W.D. despd. 7/3/96

When given for copying ____
When copied ____
When examined ____ } 189.
When signed ____

AGAIN G.O., No. 189, DATED

No.

CLOSURES TO C. No

DER OF GOVERNMENT .. .. .. A A A A A A A

ER OF GOVERNMENT.

MENT WITH DITTO.

NOT FILED UP, BEING MEANT FOR DESPATCH IN ORIGINAL.

N.B.—
A = Copy in full.
B = Not to be copied.
P = Copy abstract only.
Q = Copy heading only.

Change of designation of Appointments in the Tank Restoration Scheme.

G. S. Forbes Esq^r

(From orders)

T8/2