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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Public Works. DEPARTMENT

G.O. No. / B.P. No.	1822 W.	Press. / Mis.
Dated	17.7.1882	197 .

Not to be folded or roughly handled

1822

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

No. 109.

READ—the following G.O., dated 1st July 1882, No. 3242, Military :—

Read—the following letter from Lieutenant-Colonel J. EWING, Officiating Quarter-master-General, to the Secretary to Government, Military Department, dated Ootacamund, 29th June 1882, No. 528 :—

Referring to G.O., No. 3893, of 21st June 1880, I have the honor, by order, to report, for the information of Government, that the Resident, Mysore, has intimated that the price of the piece of garden land mentioned by the Officer Commanding Mysore Division in paragraphs 19 and 20 of his letter, No. 188, dated 19th April 1880, published in Order of Government under reference, has been finally fixed at Rs. 782-12-0, sanction for payment of which is now asked for.

2. The delay in the preliminaries of assessing the value of this land has been unavoidable, having been caused by a legal question for some time pending as to the revenue jurisdiction within the limits of the Civil and Military Station of Bangalore, but it has been most unfortunate, inasmuch as it has resulted in a considerable rise in the price to be paid for the land.

3. I am to mention that the small piece of land mentioned in paragraph 21 of the letter of the Officer Commanding Mysore Division above quoted has already been acquired by the Public Works Department for the sum of Rs. 120.

Order—dated 1st July 1882, No. 3242, Military.

Transferred, with a copy of Proceedings of Government, No. 3893 of 1880, to the Public Works Department for provision of the required funds.

(Signed) E. L. HANKIN, Colonel,
Ag. Secy. to Govt., Mily. Dept.

To the Public Works Department.

No. 110.

ORDER—dated 17th July 1882, No. 1822 W., Public Works.

Communicated to the Superintending Engineer, Fifth Circle.

2. Of the sum required for the purchase of the land, Rs. 561 are allotted from the Military Reserve under Minor Original Works, and the balance, Rs. 222, is appropriated by transfer from the Reserve under Military Repairs.

(True Extract.)

Under Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, Fifth Circle, } with a copy of G.O., Military Department,
" Examiner of Public Works Accounts, } No. 3893, dated 21st June 1880.
" Military Department.

Exd. A. F. Goodall.

Spare Copies

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of {1882} Madras.

PUBLIC WORKS.

Dated July, 17*th*.

Recd. *Encl.*

G.O., 17th July 1882, No. 1822 W.

JULY.
Nos. 108-110.

Land in the vicinity of Dhobies' Wells, Bangalore.

Purchase of certain —. Letter from the Quartermaster-General intimating the amount required for the —, communicated to the Superintending Engineer, Fifth Circle.

2/1822

GOVERNMENT OF MADRAS.

MILITARY DEPARTMENT.

21st June 1880, No. 3893.

Cantonments—Water Supply.

Read the following papers:—

No. 322. *From Brigadier-General H. O'CONNELL, Quartermaster-General, to Colonel H. N. D. PRENDERGAST*, V.C., C.B., *R.E., Acting Secretary to Government, Military Department; dated Ootacamund, 13th May* 1880, *No.* 182.

I have the honor, by order, to bring to the notice of Government that in February last Surgeon-General Crawford visited Bangalore and reported on the Ulsoor Water Works, recommending certain precautions and the purchase of a certain plot of ground in the vicinity of the Dhobies' wells as a means of preventing the water-supply becoming contaminated. His letter, No. 50, dated 14th February 1880, is enclosed.

2. The General Officer Commanding Mysore Division was called upon to report on Surgeon-General Crawford's recommendations, and submitted a very full report, in his letter, No. 188, dated 18th April 1880, which with its enclosures is also submitted.

3. In the mean time, Surgeon-General Sir A. Home having arrived, the correspondence was submitted to him for consideration. With reference to the recommended purchase of ground in the vicinity of the Dhobies' wells, Surgeon-General Sir A. Home advises the abatement of the nuisance caused by the proximity of pools of foul water to the Dhobies' wells, but adds that he cannot say whether this had better be done by purchase of the ground or some other way. His letter, No. 177, dated 1st May 1880, is also enclosed.

4. Another letter on the subject, No. 207, dated 10th instant, from the General Officer Commanding Mysore Division, with enclosure, is also submitted. Major-General Payn strongly urges that no time be lost in deciding on the acquisition by Government of the portions of land near the Dhobies' wells, mentioned in this correspondence, viz., the two pieces of private property to the south of the present Government property, and shewn in the plan accompanying Major-General Payn's letter, No. 188, dated 18th April 1880.

5. His Excellency the Commander-in-Chief recommends that the Chief Commissioner of Mysore and Coorg be addressed on this subject with the view of the land in question, including, if possible, the portion that is the property of the Municipality, being taken up for Government purposes, and purchased by the Madras Government, under existing rules for the acquisition of land for public purposes.

From Surgeon-General T. CRAWFORD, Principal Medical Officer, British Forces, to the Quartermaster-General; dated Fort St. George, 14th February 1880, No. 50-80.

I have the honor to report, for the information of His Excellency the Commander-in-Chief, that during my recent sanitary inspection of Bangalore, I went carefully over the water-works and gathering grounds included in the watershed which drains into the Ulsoor Tank from which the chief water-supply of the troops is obtained. This tank and its surroundings are so graphically described by my predecessor, Surgeon-General C. A. Gordon, C.B., in a memorandum printed in Proceedings of the Government of Madras, dated 19th January 1876, that it is unnecessary to do more than indicate generally the grounds upon which I consider the following suggestions necessary. The gathering ground of this water-supply includes within its area the large native town of Bangalore, the lines of a Native and European Infantry corps, a large native burying-ground, a large tannery and many minor sources of impurity. The water-courses leading through the localities so occupied are favourite places of resort by the lower classes of natives for purposes which do not improve their sanitary condition, while the tank is further liable to pollution by being used as a bathing place by natives and by the free escape into it of actual sewage swept along the street gutters and open sewers of the town of Bangalore during heavy rains, the sewer being so constructed as to allow the storm water to flow over into the tank feeder. It is obvious, therefore, that extreme caution should be exercised in guarding against the dangers to which the troops must always be exposed so long as their water-supply is drawn from this source, and that the condition of the filter-beds on which so very much depends should be carefully watched and recorded.

2. At present, the filters are of two kinds; the chief and by far the safest and most effective being a natural bed of laterite which underlies the tank and which has been perforated by a series of wells just as it crops up to the surface outside the bund of the tank. Of these wells I need say but little. They are at present yielding a liberal supply of water of reputed good quality, and will probably continue to do so for some considerable time. It is well to bear in mind, however, that the quantity of foul water now percolating through the formation in which they are sunk may in time either so modify its filtering power as to cause the wells to "give out" altogether or to yield only a water of questionable character—a contingency which it is hoped will not happen till the arrangements now in progress for supplying the municipality—troops included—with a more trustworthy water-supply have been perfected.

3. The supply from the "Dhobies' Wells," as these borings in the laterite bed are called, is not sufficient however, and it has therefore been found necessary to supplement it by constructing artificial filter-beds close to the works, from which a further supply can be drawn as well when the wells run low. One of these beds was in use when I first visited the works, but beyond the apparent purity of the water yielded, I could not ascertain that any systematic examination of the water so obtained was made from time to time and recorded so as to enable the medical authorities and the Engineer in charge of the works to determine when and to what extent the filter-beds were being fouled. Heretofore the filtering material (sand and charcoal) appears to have been changed about once in three years, but as three months' continuous work might foul the beds as much as three years' occasional use, it is obvious that unless a register be kept showing approximately at least the state of water entering the filter, the rate at which it is permitted to flow through, and the actual purity of the water so filtered, the beds may become foul and the troops may suffer in consequence before attention is drawn to the real cause of the mischief.

4. I have to suggest, therefore, that a careful record of the period during which each of the artificial filter-beds is in active use be kept by the Engineer in charge of the works and furnished weekly to the Principal Medical Officer, and that the latter shall also be required to ascertain the actual condition by analysis, made by one of his officers, and for which he is already provided with the means of the water in the tank as well as of the water supplied to the troops from these filters and also from the Dhobies' wells. A monthly rough analysis, such as is contemplated in Proceedings of Government of 12th October 1877, No. 5708, would probably suffice for this purpose so long as the troops are free from any form of disease attributable to foul water, but the occurrence of cases of enteric fever or of bowel complaints which cannot be otherwise clearly accounted for should be looked upon as necessitating a more thorough analysis of the water.

5. The condition of other occasional and local sources of supply should not, of course, be overlooked on such occasions, and doubtless would not but soldiers and the public at large—officers and their families included—will usually take the water brought for their use without question, and the bheastie will always, if allowed, bring that which is nearest at hand without reference to the finger-post which may declare it "unfit for drinking or cooking purposes."

6. There is a small plot of ground adjoining the enclosure in which the "Dhobies' wells" are situated, which Mr. Smith, the Engineer in charge of the works, informed me belongs to the Bangalore Municipality, who have sunk two wells in it, and after quarrying some laterite for road purposes in the immediate vicinity have permitted the excavation so made and which fills

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with water after rains to become a foul pool through use by dhobies, thereby endangering the purity of the wells.

7. I would suggest that this plot of waste ground should be taken possession of or purchased if necessary and enclosed with the Dhobies' wells, the surface being carefully levelled and freed from all sources of impurity likely to affect the underlying laterite as a filtering medium. This is the only practicable direction in the vicinity of the works in which new wells could be sunk should those now in use cease to yield sufficient water for the troops, and Mr. Smith informed me that, if secured and perforated with a few additional wells, he thought the necessity for using the artificial filters would be of rare occurrence.

I have the less hesitation in making these suggestions as they do not involve any serious expenditure of money.

From Major-General W. PAYN, C.B., Commanding Mysore Division, to the Quartermaster-General, Fort St. George; dated Ootacamund, 19th April 1880, No. 188.

I have the honor to acknowledge the receipt of your letter, No. 1552, of 20th February 1880, giving cover to letter* from Surgeon-General Crawford regarding the water-supply of the troops from the Ulsoor tank and Dhobies' wells, and calling for certain information on the subject.

*No. 50-80, dated 14th February 1880, herewith returned.

2. I propose first to make a few observations on the points touched on by Surgeon-General Crawford and then to pass on to the consideration of the subject generally.

3. Surgeon-General Crawford recommends—

(1). That a careful record of the period during which each artificial filter-bed is in use may be kept, and that the Principal Medical Officer be required periodically to make a rough analysis of the water obtained from these filters and the Dhobies' wells.

(2). That a plot of waste ground adjoining the Dhobies' wells enclosure should be purchased.

4. A record of the time during which the one filter-bed in working order has been in use, that is of the period during which water is actually filtering through the material in it, has not hitherto been kept because for the past three years (as will be seen from the tabulated statement attached) it has been worked most irregularly, as a rule merely to furnish the quantity of water that has been required to supplement the supply obtained from the Dhobies' wells, which, especially of late, have been yielding so freely as to give nearly the full quantity required.

5. The water at present obtained from the filter-bed is, both in appearance and to the taste, exceedingly good; I do not therefore propose at once to change the filtering material of the bed but to await the result of the analysis which the Principal Medical Officer here will make shortly, as soon as the apparatus at his disposal, which is now not in working order, will allow of his carrying it out. If this analysis shows defective working of the filtering material, it can at once be changed without any difficulty.

6. Though the exact record desired by the Surgeon-General is not kept, the quantity of water that passes through the filter-bed daily is carefully gauged and recorded, and when this is considered in connection with the results of analysis which will be made, a tolerably accurate estimate may be deduced of the filtering powers of the material in the beds.

7. I am unable to ascertain exactly when the filtering material, which was replaced in 1876 by that now in use, was originally placed in the filter beds; but the Engineer in charge of the Ulsoor Water Works says he can state it was in use for about three years. No fault had been found in the quality of the water obtained from it, until suddenly, when after the long drought the first supply of water which the tank received was passed into the filter-bed.

This was of course abnormally thick and muddy, having rushed into and turned up the dry bed of the tank, and the large quantity of suspended matter in it soon clogged the filtering material. Experience has shown that the sand forming the upper stratum of the filtering material is at all times very soon caked with a layer of fine clay, which is found suspended in the tank water to a marked degree, making it before filtration "fawn-colored and quite opaque" as described by Dr. Nicholson in his analysis in 1874. Under these conditions the sand requires and receives constant scraping and partial renewal at intervals, though the charcoal and gravel below are not touched, so that there is from time to time some renewal of an important portion of the filtering material.

8. It is no doubt most desirable that a periodical analysis of the water supplied to the troops from both sources should be made, and, as soon as he is in a position to do so, the Deputy Surgeon-General will have Dr. Crawford's recommendation on this head duly carried out.

9. To facilitate reference in connection with the subject of the waste land near the Dhobies' wells of which Dr. Crawford recommends the purchase, I think it as well to attach a sketch plan of the locality, of which perhaps a general description may be fittingly added.

10. The Dhobies wells' enclosure originally contained sixteen wells; twenty additional wells were subsequently sunk, but of this number five, situated to the west of those shown in the plan and more immediately under the tank bund, were at a later period filled in, leaving thirty-one wells to which a pumping well was afterwards added; and more lately a pure-water basin for the water from the new filter has likewise been constructed between the new filter and the pumping well.

O.G., Public Works Department, No. 1933, dated 22nd July 1871.

O.G., Public Works Department, No. 144, dated 15th January 1873.

11. When the land containing the Dhobies' wells was sold by the Municipality—a measure said to have been much opposed by the inhabitants of Ulsoor, who considered they had a vested right in the wells which had been used by them from time immemorial—that body laid out the proceeds in the acquisition of an adjoining piece of land in the same water-bearing deposit, (but slightly nearer to the village of Ulsoor), in which three wells were sunk and a ghât or washing place for dhobies provided. Since that time some laterite has been excavated between the wells and the dhobies' ghât, making the pool noticed by Surgeon-General Crawford.

12. Immediately to the east of the Municipal land and adjoining the Dhobies' wells ground, is a small plot of ground—private property—to which Surgeon-General Crawford does not allude in his report, but as I shall have occasion to refer to it below, I think it as well to mention it here.

13. As regards the acquisition now from the Municipality of *all* the ground and wells above mentioned, I am sure such a proposition would not for a moment be entertained by the Municipality nor would it be sanctioned by the Chief Commissioner, for when in 1876 a proposal was made for the acquisition of a *part* of the municipal land for the construction of additional wells, the Municipality emphatically protested against any such proceeding and the Chief Commissioner in his order on the subject distinctly declined to sanction it.

14. Since then, however, observation has shown that of the three wells sunk by the Municipality only one is ever used, the two immediately adjoining the boundary hedge (A and B in plan) being never drawn from by a single person. This is perhaps to be accounted for by the fact that these two wells, which are necessarily open ones, stand under trees the leaves from which fall into and contaminate the water: if once emptied and covered in, as they would be if they were acquired by Government, this objection to them would no longer exist.

15. Notwithstanding the fact that they are now never used, I think it very doubtful whether the Municipality would part with them, having before it the apprehension that if they were once connected with the military wells the removal of the water from them by pumping would in all probability have the effect of emptying, or at all events reducing, the quantity of water in the third well (C in plan), which is now used.

16. Surgeon-General Crawford mentions the probability of the supply of the Dhobies' wells being contaminated by the "foul pool" in the municipal ground, which is said to be used by dhobies. I am not however inclined to attach any importance to this source of danger, because observation has shown that, however much the level of the water in the Dhobies' wells is reduced by pumping out, the level of the water in the municipal wells and in the pool is not in the least altered. From this it may be inferred that a bed of stiff clay or other impermeable formation interposes itself between the dhobies and municipal wells. This would effectually prevent any infiltration from the latter towards the former, while also the rapid slope of the ground to the south furnishes a more natural out-fall for surface and subsoil water in that direction.

17. However, assuming that the municipality would agree to sell the two wells, there are some points which should, I think, receive consideration before any decision is arrived at in regard to their purchase and connection with military wells. First, as regards the quality of the water in the well. When the new military wells were being sunk, Assistant Surgeon Nicholson gave it as his opinion: "The quality of the water tends to deteriorate as the source extends towards the west,"—"the quality tends to assimilate with that of the less pure well water below the comparatively impermeable part of the tank bund"—"I consider that the next well* is as far west as water should be procured by percolation from the Ulsoor tank." Now one at all events of the two municipal wells is further west than any of the existing dhobies' or military wells, so it is desirable that a careful analysis of its water should be made before it is connected with the latter. Even if the quality of the water is found to be as good as that of the Dhobies' wells, it seems a question whether it would be prudent to connect the two sets, for, in so doing, it would be necessary to perforate the clay bank, existence of which I have above mentioned, which being

* This was one of those subsequently ordered to be abandoned.

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done, any impurities which might find their way into the municipal wells from the pool or from the surface of the ground outside the military limits, would be carried into the Dhobies' wells.

18. I would mention that I have no reason for thinking the water of the municipal wells is in any way inferior, nor do I consider that at any time there would be any danger of their being contaminated by impurities as above suggested, but it seems to me as well that when the matter is being considered nothing should be overlooked.

19. The plot of garden ground to the east of the municipal ground contains a masonry well 20 feet deep and 6 feet in diameter, and also an irregular excavation 2 or 3 feet deep in which water lodges. In both of these reservoirs the level of the water is coincident with that of the water in the Dhobies' wells, falling as the Dhobies' wells are pumped out and rising again when the pumps are at rest, showing clearly that the laterite formation is continuous between them and the Dhobies' wells. The clay bank I mentioned in para. 16 probably passes through the western corner of this plot, dividing its well and pool from those of the Municipality. I am decidedly of opinion that this plot of ground should be acquired by Government: it, or great part of it, is within the limits of the laterite bed, and there is space in it for sinking two or three more wells; the risk of impurities from it finding their way into the Dhobies' wells is distinctly very great, especially while it is allowed to remain in the hands of a native, who at any time may cultivate it, using deleterious manures, or perhaps build a house on it the occupants of which would probably foul the ground most objectionably.

20. This plot of land was purchased by the present proprietor a few months ago for Rs. 70, he now asks Rs. 600 for it; but it is believed that, if taken up for public purposes, the value as assessed by the Civil authorities would probably not exceed Rs. 200. It is, however, most desirable that early steps should be taken towards its acquisition, for once the holder of the land gets an inkling of the probability of its being taken up for public purposes, he will either commence building operations or do something to enhance its value.

21. The small triangular piece of ground to the east is distinct from that just described, and is of no value as regards increasing the supply of water, but if the other plot be purchased, it would be desirable that this also—its value being something very trifling—should be acquired to give the Government land a regular and well-defined boundary.

22. The supply of water to the troops as now effected from the Dhobies' wells and Ulsoor tank is in my opinion most efficient and provides an ample quantity of extremely pure water to troops, followers and horses.

23. It is unquestionably most fortunate that the Madras Government decided so promptly in favor of the execution of this scheme, leaving the Mysore Government to provide separately for the inhabitants of the town, for, had any joint action been waited for, the troops would for the past six or seven years have been without any water but the limited quantity obtained from wells; even at this time, too, there appears to be no prospect of the Mysore Government scheme being brought into anything like practical working within a definite period, for, in reply to a communication on the subject, the Chief Engineer, Mysore, writes—"It is not at present intended to undertake any portion of the works of distribution in connection with the newly-constructed reservoir; as soon as the rock-cutting through the Ridge near the Mysore State Railway Office is completed, the tanks* in the Gotahully Valley will receive a supply from the new reservoir, and nothing further in the way of water supply therefrom is at present contemplated." However, even if it were, I question whether there would be any advantage in looking to it in the future as a source of supply for the troops in any way superior to that which now provides for them—a view which is based on the following considerations.

* Miller's tank and three others between the station and the railway terminus.

24. Setting aside the doubts which I believe are entertained by many authorities as to whether the Mysore Government scheme will ever attain the perfection which is claimed for it, it appears to me that, as its reservoir equally with the Ulsoor Tank depends for its supply on the somewhat precarious or at all events uncertain source of local rainfall, there is no reason to anticipate that the former should receive a supply while the latter does not.

25. Again, the Mysore Government scheme, it is understood, provides for a supply of ten gallons per diem per head, or about 30,000 gallons per diem, no allowance being made for horses, cattle, &c.; this cannot be considered as an ample one as regards the troops, &c., for whose wants something like 60,000 gallons are found to be required daily and are supplied by the Ulsoor scheme,—the tank being estimated to contain about ten years' supply of the above demand.

26. I fail to see, moreover, that the Mysore Government scheme is likely to provide water of a quality superior to that now obtained from the Ulsoor scheme, which competent authorities have stated to be of the purest quality. The gathering grounds of the new Mysore reservoir are probably cleaner than those of the Ulsoor tank, but the water of the latter before use has the advantage of being effectually filtered, either naturally through the laterite or artificially

through the filtering beds, which advantage. I believe, will not be shared by the water of the new reservior.

27. I would also lay much stress on the great advantage accruing from the possession of a source of supply for the troops independent from that of the civil population; this is unquestionably a great convenience at all times, but its value would be specially felt in times of drought, such as have not long since been experienced, when the possession of separate stores of water would be almost inestimable.

28. Finally, there is the consideration of expense. The Mysore Government scheme provides, I believe, merely for the head works and arterial mains of delivery, leaving the distribution arrangements to be carried out by the Municipality for the civil community and it is presumed by the Madras Government for the troops.

29. Probably, therefore, a considerable outlay would be requisite on the part of Government in connecting the barracks with the arterial mains of the Mysore Government.

30. It only remains for me now to make one or two remarks regarding the existing means of supply. The Dhobies' wells have lately been yielding unusually large quantities of water; this perhaps may be attributed to the deepening of the supply channel, north of the wells, to provide for water being brought from the tank to the new filter-bed; pipes have been laid under the culvert at the west end of this channel at such a depth that, however low the tank may fall, water from it may run into the supply channel and so, in fact, be kept in contact with a portion of the laterite bed, which before this was frequently liable to be dry.

31. The quantity now received from the Dhobies' wells is almost sufficient to supply the whole garrison, indeed is more than sufficient to supply the present garrison if a strict allowancing of the water was carried out; but while water is available, it seems a pity to stint the supply of it to the troops, whose comfort is no doubt increased by having an ample supply.

32. If the garden south of the wells is purchased, perhaps two or three more wells could be sunk in it, and these would probably sufficiently augment the supply to enable the whole of the wants of the full garrison to be met from the Dhobies' wells alone.

33. The new filter near the wells, which has not formally been made over to the Military Department for use, has been tested and at one time was found to leak very considerably, but since then some measures have been taken which have, I believe, effected an improvement; however, leakage here is not of much consequence, for the water comes into the filter by gravitation and what escapes from it simply percolates through the laterite and spreads itself over the wells—the stiff clay bank which bounds the laterite bed preventing its escape and loss.

34. In connection with this filter, a pure-water basin of a capacity of 10,000 gallons was constructed, though the Engineer of the water works pointed out that a basin of this capacity was useless, inasmuch as the pump would empty it in half an hour or less, when the engine would have to stop until the basin was refilled.

35. He showed that no pure-water basin at all was necessary, all that was required being direct connection between the filter and the pump well, whence the water would diffuse itself to the other wells, which would in fact form a series of pure-water basins. Events have established the correctness of Mr. Smith's opinion, for on a recent occasion the pure-water basin was pumped dry in ¼ of an hour.

36. Mr. Smith has introduced some modifications in the working of the Dhobies' wells engine which have resulted in large saving of fuel in its working.

37. This is not the first occasion in which Mr. Smith's suggestions have effected a saving of expense, and I would take this opportunity of recording my sense of the value of his services in connection with the Ulsoor Water Works, the success of which I am sure is in a great measure due to his unremitting energy and attention.

P.S.—I omitted to mention, with reference to the query in the latter part of para. 2 of your letter under reply, that the Mysore Government scheme is understood to contemplate the supply of water to the Cavalry (Agram) and all other barracks solely by gravitation from a delivery reservoir at a level of 80 feet above Ulsoor tank waste weir. The heights of the stand pipe at the Ulsoor Rock and the various cisterns, &c., in the barracks are given below:—

	Above Ulsoor Waste Weir.
Top of Ulsoor Rock	48·6 feet.
Top of stand pipe on rock	87· „
Floor of Royal Horse Artillery cistern	36 26 „
Floor of race course (Agram) cistern	38·5 „
Floor of parade (Bakery Square) cistern	63·65 „
Floor of iron cistern in Female Hospital (Agram) ...	55·75 „
Floor of iron cistern in Male Hospital (Agram) ...	57·16 „

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From Surgeon-General Sir A. D. HOME, V.C., K.C.B., Army Medical Department, to the Quartermaster-General, Ootacamund; dated Fort St. George, 1st May 1880, No. 177-80.

In returning the correspondence and enclosures marginally noted, I have the honor to state that I concur in the views and in the recommendations made by Surgeon-General Crawford in respect of additional measures desirable to be taken to diminish the risk of danger to health in those using the water of the Ulsoor tank at Bangalore, the recommendations being:—

(1.) Letter, No. 50-80, dated 14th February 1880, from Surgeon-General Crawford.
(2.) Letter, No. 188, dated 19th April 1880, from the General Officer Commanding Mysore Division, with two enclosures.

(1.) The more frequent change of the filtering media than obtains at present.

(2.) The abatement of the nuisance caused by the proximity of pools of foul water to the Dhobies' wells; but in my opinion, whilst advising that this be effectually done, I should not deem it right to say how it should be effected, whether by purchase of the ground, or in what other way.

(3.) By registration of the periods of time during which water was passed through the artificial filters, and the employment of chemical examination of the filtered water as proposed once a-month or oftener.

From Major-General W. PAYN, C.B., Commanding Mysore Division, to the Quartermaster-General; dated Ootacamund, 10th May 1880, No. 207.

With reference to that portion of my letter, No. 188, dated 19th April 1880, in which allusion was made to the supply of water to the various barracks at this station under the new Mysore Government project, I have the honor to forward a copy of a letter* just received from the Superintending Engineer of Mysore, from which it will be observed that the Mysore Government project, as now framed, does not provide for the supply of water to the European Barracks.

*No. 2194, dated 7th May 1880.

Distinct information on this point was asked for from the Superintending Engineer, Mysore, upon your letter, No. 1552, dated 20th February 1880, and, not being received in his reply, he was again addressed; but I did not think it necessary any longer to delay my report on the subject, the information given in which regarding the Mysore project and its scope was gathered from a memorandum of the Chief Engineer of Mysore, dated 1868, sketching out the main features of the project.

I take this opportunity of mentioning that I have ascertained that the Municipality will not consent on any grounds to give up any of the wells or ground mentioned in paras. 11—13 of my letter under reference.

I would also note that I have learnt the owner of the garden mentioned in paras. 12, 19 and 20 of my letter has now obtained from the Municipality the small strip of ground, a few yards wide (shown as a pathway in plan which accompanied my letter), to the east of his land and separating it from the triangular piece of land mentioned in para. 21 of my letter.

He is also taking steps to acquire the triangular piece of ground too, so that, when the time comes for him to receive compensation for his land taken up for public purposes, he will have considerably increased its value.

I would strongly urge, therefore, that no time be lost in deciding on the acquisition of this land, which I consider of very great value to the Madras Government, in connection with the water-supply of the European troops.

From Lieutenant-Colonel W. R. JOHNSON, Superintending Engineer of Mysore, to the Assistant Quartermaster-General, Mysore Division; dated Bangalore, 7th May 1880, No. 2194.

In reply to your No. 659, dated 20th March 1880, inquiring whether it is intended, when the distribution works are completed, that they should include the supply of water to the European barracks on the parade at Ulsoor and at Agram, I have the honor to inform you that the project, as finally submitted to the Government of India, specially omitted all provision for the supply to the European barracks, arrangements for which, it was stated, had already been made by the Madras Government by pumping up service water from the Ulsoor tank and drinking water from the Dhobies' wells below the tank. It does not appear to me at present probable that the new water-works will, in the course of some years, provide for the troops as well as the civil population.

The delay in replying to your letter has arisen from the papers containing the requisite information having to be sent for from other offices.

No. 323. *From Brigadier-General H. O'CONNELL, Quartermaster-General, to Colonel H. N. D. PRENDERGAST*, V.C., C.B., *R.E., Acting Secretary to Government, Military Department; dated Ootacamund, 24th May* 1880, *No.* 261.

With reference to your memorandum, No. 3086, dated 15th instant, I have the honor, by order, to state that the General Officer Commanding Mysore Division reports that the approximate cost of acquiring the piece of garden land and that adjoining it, in the vicinity of the Dhobies' wells at Bangalore, is Rs. 300.

2. With reference to the piece of ground belonging to the Municipality, it is reported that the Municipality decline, at any price, to part with any portion of their land or wells.

No. 324. ORDER THEREON, 21st June 1880, No. 3893.

Under the circumstances represented, and on the recommendation of His Excellency the Commander-in-Chief, His Grace the Governor in Council approves the purchase of the land (municipal and private) in the vicinity of the Dhobies' wells at Bangalore.

2. The Chief Commissioner of Mysore and Coorg will accordingly be addressed on the subject.

(True Extract.)

(Signed) J. MICHAEL, Colonel,
Secretary to Government.

To the Quartermaster-General.
" Surgeon-General, Her Majesty's Forces, Madras.
" Controller of Military Accounts.

Exd. A. Raitt.

6/1822

C. No. 4485

P. W. Secretariat.

7/1822

Note by Budget Section.

Work Purchase of garden land in Bangalore -

Remarks and References.

Fund Imperial

Service Head Military ... ... Rs.

Departmental Head Original Works

Amount of estimate ... ... „ 783

Expenditure in previous year ... ... „ -

Allotment in current year ... ... „ -

Balance required to complete ... ... „ 783

Total Rs... ______

Note of available funds.

The balance available under Reserve Grant Original works is only Rs 561 and this sum can be granted for the present.
The balance of Reserve under Mily Repairs is Rs 5,500.

783
561
222

Budget ~~*Clerk.*~~

Govt. of Madras 1880

MILITARY.

To
The QUARTERMASTER-GENERAL,
&c., &c., &c.

Dated June, 21st.
Recd. Encl.

G.O., 21st June 1880, No. 3893.

S.

JUNE.
Nos. 322—325.

Approving the purchase of certain land in the vicinity of the Dhobies' wells at Bangalore.

Note by Budget Section.

1882

QUARTERMASTER-GENERAL'S OFFICE,
Head Quarters,
Ootacamund 29th June 1882.

8/1882

No. 528

From Lieut. Colonel J. Ewing
Officg QUARTERMASTER-GENERAL.

To
THE Secretary to Government,
Military Department.

SIR,

Referring to O.G. No. 3893 of 21st June 1880, I have the honor, by order, to report for the information of Government, that the Resident Mysore has intimated that the price of the piece of garden land mentioned by the Officer Commanding Mysore Division in para 19 and 20 of his letter No. 188 dated 19th April 1880, published in O.G. under reference, has been finally fixed at Rs. 782-12--, sanction for payment of which is now asked for.

2. The delay in the preliminaries

of

of assessing the value of this land has been unavoidable, having been caused by a legal question for some time pending as to the revenue jurisdiction within the limits of the Civil and Military Station of Bangalore, but it has been most unfortunate, inasmuch as it has resulted in a considerable rise in the price to be paid for the land. —

3. I am to mention that the small piece of land mentioned in para 21 of the letter of the Officer Commanding Mysore Division above quoted, has already been acquired by the Public Works Department for the sum of Rs: 120 – " – " . —

I have the honor to be,
Sir,
Your Obedient Servant,
John [illegible]
Lieut Colonel
Offg: Quarter Master General.

N.B. 6 spare copies
of the [illegible] letter
are required

9/1822

Memo 58. 4-1-80.
" 643. 26.2 "
" 686C. 22-3-82.
" 813C. 5-4- "
G.O. 3893. 21-6-80 Mily Depts

No. 3242 Transferred with a copy of G.O. No. 3893 of 80, to the Public Works Dt for provision of the required funds.

C. Hawkins Colonel
Ag. Secy to Govt
1st July 1882

To the Pub. Works Dept. with a copy of G.O. No. 3893 of 80 –

Vol 30.7

only 11/7

Military (1882) Department.

No.

From

W.G. No. 4485

The Quarter Master General,

To

The Secretary to Government,
Military Department.

Dated 29th June
Recd: 30th
Recd 6th July

No. 528.

Regarding the price of the piece of garden land in Bangalore

No. 1822 W

B.I. Mily Works 10/1822

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 17th July/82

Read the following :—

Endt. from the Mily Dept. A.G. No. 3242 of 1st July 1882

Communicated to the S.E. 5th Circle.

2. Of the sum required for the purchase of the land, Rs 561 are allotted from the Mily reserve under minor original works, & the balance Rs 222 is appropriated by transfer from the reserve under Mily repairs.

13.7.82

To the S.E. Fifth Circle } with copy
" Secy P.W.D. } of G.O. Mily Dept No. 3893 of 21.6.80
" Mily Dept.

24 W
14/7

14.7.82

4485

Govt. of (1882) Madras.

PUBLIC WORKS.

Dated 3/7

Recd. Encl.

G.O., 17 July 1882, No. 1822 W.

Nos. 109-110

Land in the vicinity of Dhobies' wells Vepery [illegible]

Purchase of certain —

Letter from the [illegible] intimating the amount required for the — [illegible] the S.E. Circle

[illegible] 19/7 Entd. in Receipt Regr.