

L. & M.
2,000-28-10

Local & Munl. (1897) Department.

MISCELLANEOUS.

G.O., No. 2666 M.

DATED 30 11 97

INDEXED. *CR*

DESPATCHED

[Despatch Abstract.]

Trichinopoly water works

*Requesting the P. & B. to direct the
Superintending Eng^r. V. C. to inspect
the water works at Trichinopoly & to
give his opinion on the controversy regard-
ing the state of the works.*

BACK PAPERS.

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

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
	804		11/98				

Local and Municipal

(1897) Department.

CURRENT No. 3998M

Current No 2593-m, 3073-m
and 3998-m of 1897.

From The Public Works Dept.

Order no. 2666 mmsd 30. 11-97.

The Public Works Department
is requested to direct the Superintending
Engineer VI. Circle, to inspect the water-
works at Trichinopoly and to give
his opinion on the controversy re-
garding the state of the works.

No. 4809C

Dated 17th November 1897

Received 19-11-97

Enclosures C. Nos 2593 & 3073 mmsd.

Spare copies

V.R.
29/11/97

H.T.
30. 11.97

SUBJECT.

Water works in the town of Trichinopoly:-
Stating with reference to
the controversy re. the state of the
that it would be well to get an
independent professional opinion and
the Supdy Engr. VI circle will be
directed to report if desired.

To The Public Works Department. Ho.
Cups 8/12/97

2/26/11

28/11

Local & Munl. (1897) Department. ^{MS}

CURRENT No. 3073

Current No 2593. m and 3073. m

From

The Sanitary Engineer
to Cook

No. 1411

Misc
Order.

The Sanitary Engineer's
letter read above will be communi-
cated to the municipal council of
Trichinopoly.

Dated 25-8-97

Received 26 AUG. 1897

Registered 26-8-1897

Enclosures 1 C. No 2593 in ret'd.

Spare copies

SUBJECT.

Trichinopoly Water Supply

Submitting his remarks
letter from the Chair.

on letter from the Chair.

we might ask D.D. to march to Trichinopoly
give an opinion on the cartons & bring to notice of Govt.

& say whether they think it an the ^{competent} judicious manner

of him outsiders, except ^{expected} ^{to} be asked to inspect the works, in which the head works
 The Chairman. In C. Trichucopoly ^{16/11/47} have been constructed.
 .. Sanitary Engineers ^{16/11/47}

869 15710

P.T.O.

Current Nos. 2593. M & 3073. M of 1897.

BACK PAPERS.

G.O.	No.	Department.	Date.
	Envt 807/97		

FURTHER PAPERS.

G.O.	No.	Department.	Date.

With the Public Works Department ~~is expected to~~ be good enough to give its opinion on the controversy regarding the state of the water works in the town of Trichinopoly, contained in the papers read above, and to state whether it is ~~necessary~~ ^{desirable} to direct a competent Superintending Engineer, to inspect the works.

V.R.
28/10/97
J.S.P.W. Co.

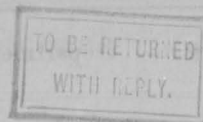
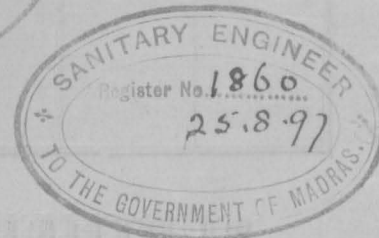
No 4892 d/17th November 1897
Seeing that an extension of these works is now proposed, I think it would be well to get an independent professional opinion on their efficiency, & I shall be glad to direct the S.S. VI Clerk to report upon them, if desired.

L.B. A.S.

To
15.11.97 The Public Works Department.

Local & Munl. (1897) Department.

CURRENT No. 2593 M



No. 807 d/ 29th July 1897.
Order.

Referred to the Sanitary Engineer for remarks.

Secretary to Govt.

From

The Chairman
Municipal Council
Trichinopoly

No. 24.

Dated 10 - 7 - 97

Received 17 JUL 1897

Registered 17-7-1897

Enclosures

Spare copies

SUBJECT.

Bringing to the notice of the Government the unsatisfactory manner in which the collecting wells, the screening chamber and the Engine and Boiler house have been constructed at the Head Works of the Trichinopoly Water Supply.

To
The Sanitary Engineer

BACK PAPERS.

G.O.	No.	Department.	Date.
Go	1542	hch	5-6-97
"	1362	hch	5-6-97
"	230	hch	16-2-97
"	2096	hch	10-12-96
"	1731	hch	10-10-96

FURTHER PAPERS.

G.O.	No.	Department.	Date.

625.2
10/10/97

0-0-4

No. 22.

MUNICIPAL COUNCILLORS' OFFICE,

TRICHINOPOLY 10 July 1897.

FROM, Khan Bahadur Hader Khan Sahib
CHAIRMAN,

Municipal Council,

LOCAL & MUNICIPAL DEPT. TRICHINOPOLY.

To,

The Chief Secretary to Government,

Local and Municipal Department,

FORT ST. GEORGE.

Through the Collector of Trichinopoly.

SIR,

As the Government have lent a large sum of money for the execution of water works in this Municipality and will doubtless be much interested to know their working and Condition. I venture to submit the following for their information.

2. The Sanitary Engineer's Department was going on with the works till the close of April 1896, when the Maintenance Staff was entertained and placed in charge of the Assistant Sanitary Engineer Mr. Minchin. On the 31st October 1896, the Municipality took charge of what the Department gave and on being asked for an Account of pipes &c. received, issued and remaining in store, the

Sanitary Engineer said that we were to take what he gave and that the responsibility rested with his Department. This account the Council desired to have as it was widely believed that several things were allowed to be taken away by the Contractor who did the work.

3. Within a few days after taking over charge in the machine above described, it was found that the Screening Chamber was a farce and not properly done. Mr Jones put a Special Officer on Rs 200. to do this work again. He reported it as having been done on the 10th Feb and the Municipality took charge of it on the 24th February. It was very soon afterwards found that things had not become a bit better for having been redone - at, I think

A Considerable Cost, of which the pay of the Supervisor alone comes to Rs 1165. The so called Screening Chamber is no more than an additional collecting well; the blow which it was attempted to stop still continues and the well is not water tight.

4. During this hot weather there was great cause for continual anxiety: the supply became very inadequate; the Engines could not be kept going for even half an hour without break. The whole prospects looked very gloomy, but fortunately we began working by direct Connection is - without the intervention of the Screening Chamber. This & the coming in of one or two freshes in the river have considerably removed the anxiety. This point viz. the insufficiency of the present sources and means of supply

I have considered necessary to mention in view of its being carefully considered and remedied when the proposed extension to Morris and Tenmore is taken up. It is believed that the pipes have not been laid low enough in the river; the pump well is insufficient in diameter; it is 30 feet ^{deep} and the inlet pipe is 9 feet from the bottom. During the hot season, water remained at 5 or 6 feet above the inlet pipe before stopping the engine for the night. When the water in the Collecting well passed through the Screening Chamber, very often, water went down to the inlet pipe.

5. Building. Several cracks have appeared in these - not only in the Engine Room but also

Vide para. 2 of 80 no
209 (und) 10-12-96

in the boiler house: the boilers have sunk: the walls on which the girders of the engines rest are cracked: the structure over the Screening Chamber has also sunk. Recently I have had an opportunity of opening one of the Collecting wells and was surprised to see that even the scaffolding holes of this so called water tight well had not been closed: the inlet pipe valve was bending towards the east.

The river is full now and water is percolating into the pump room through the walls thus showing that the whole work has not been done satisfactorily and this circumstance has to be borne in mind in paying the

final bill of the Contractor
which is fortunately delayed
by his recent death.

I have the honor to be
Sir

Your most obedt. servant.

Kanda Narsingh

Chairman

End on Lark 2444
(rev 97)

Forwarded. An inspection by the Sanitary
Engineer seems desirable.
Wagington Inspector
ag. Collector.
15.7.97

14.7.97

6.5.1
10896 (97)

S. E.
6. 1,000-8-8-97.

No. 1411

GOVERNMENT OF MADRAS.

OFFICE OF SANITARY ENGINEER,

Fort St. George, 25 August 1897.

From

J. A. JONES, Esq., MEM. INST. C.E., F.R.S.E.,

SANITARY ENGINEER TO GOVERNMENT,

To

The Secretary to Government,

Local and Municipal Department.

SIR,

In reply to reference No. 807 of 29th. July 1897,
I have the honor to state that I have delayed replying there-
to until I was able to make an inspection of the works as
suggested by the Collector.

2. As the river was in high flood at the time
of my visit, I was unable to verify many of the statements
made by the Chairman.

3. As to the screening chamber, I do not under-
stand why such language, viz, calling it a "farce" is
used. It is true that the Supervisor had great difficulty
in making the screening chamber water tight because of the
great pressure of water on the floor from below; he reported
* he had done so, but there may yet be a leak. The chamber,
however, is in no sense a farce, because all the water (ex-
cept for two months a year) passes through the screens and
this period, viz, the time when the river is in flood or
has any visible stream, is the time when screening is neces-
sary- at other times it is not so.

4. I have already explained to Government, vide
para 5 of my No. 926 of 21st. May 1897 that the cause of
the short supply is not because the pipe between the
is below water level, but because of the insufficie-

num

1362h
5-6-97

Ch. 5742 emb
4 B.R.N.
14.6.97

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which is fortuately delayed
by his recent death.

I have the honor to be

Sir

Yours most obedt servant.

Kanda nasunth

Chairman

Ende m luro 2444
(over 99)

Forwarded. An inspection by the Sanitary
Engineer seems desirable.
Magnifying instead
ag. contractor.
(5.7.97)

14.7.97

625.1
10896 (57)

S. E.
1,000-8-3-97.

No. 1411

GOVERNMENT OF MADRAS.

OFFICE OF SANITARY ENGINEER,

Fort St. George, 25 August 1897.

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this period, viz, the time when the river is in flood or
has any visible stream, is the time when screening is neces-
sary- at other times it is not so.

4. I have already explained to Government, vide
para 5 of my No. 936 of 21st. May 1897 that the cause of
the short supply is not because the pipe between the wells
is below water level, but because of the insufficient
number

1362h

5-6-97

Ch. 5742 emb

5 B.R.R.

14.6.97

number of the wells and additional wells being required; I can assure Government that during the time of which the Chairman speaks, the level of the water in the river bed did not fall within 5 feet above the top of the pipe. The course he adopted to secure an additional supply, viz, making a direct connection with the wells is the course he ought to have adopted and there was no "fortunately" about the matter. A prominent part of the design of the works is the syphon principle of drawing water from the wells and by means of the direct communication water can be drawn down in the wells & the supply thus greatly increased. I am pleased to see that this arrangement worked well, because the water was lowered in the wells during the time the Chairman speaks of to some 3 or 4 feet below the top of the pipe & some 9 feet below the water in the river outside the well & thus a head was put on the well which gave a larger supply than could otherwise have been secured. The demand for water in Trichinopoly is rapidly increasing (or waste is increasing or perhaps both) and 950,000 gallons per 16 hours (two engines working part of the time) have been supplied. This is an average demand on each of the three wells of $\frac{950000}{16 \times 60 \times 3} = 330$ gallons per ^{minute} hour and must at times be very greatly exceeded, but when the river is not in ~~the~~ flood, the yield cannot be more than 250 gallons per minute per well (without drawing sand into the wells), so that for the dry season more wells are necessary.

5. If Puttoor and Worraiyur are added (and estimates are now under preparation) two wells for this additional area will be required, but they will be able to supplement the supply to the present area as Puttoor & Worraiyur require only a maximum of 312 gallons per minute.

6. I have already disposed of the question as to the size of the pump well (vide my No. 926 of 21st. May 1897) but it may be pointed out that when the yield of the wells is ample, viz, during floods, there is no cause to complain of the size of pump well. I cannot make out whether the concluding words of the sentence referred to, viz, the pump well being 30 feet deep & the inlet pipe 9 feet above the bottom is a complaint

or

or not.

7. No cracks have appeared in the buildings, nor have the boilers sunk since the Chairman took charge - both were due to causes which could not be avoided, viz, the necessity for opening the works at the request of the Chairman before they were properly completed & before the well was water tight and hence some sand was drawn to the well which caused the above - at present they are of no moment and if it becomes necessary they will be attended to.

8. I am surprised to find that the Chairman opened out one of the river wells without consulting me or without my knowledge. I cannot think that if the Sanitary Engineer is in any way held to be responsible for the works or if they are in any way in his case, that such action should be allowed. I am told that the outside plastering of the concrete on the top of the well had cracked, a matter of no importance; to get inside the well the concrete over the 18 feet diameter well & the thick slab stones under the concrete must have been removed and for apparently mere curiosity - whether the well was properly covered up again is not known, but it is just as likely it was not. The complaint framed on this opening is that the scaffolding holes had not been filled in - a matter of no moment as they would be 3" or 4" in the wall which is 18" thick - such complaints are almost too frivolous to notice.

9. The river water, when the river is in high flood, does percolate through the walls of the pump room and up through its floor; this room is below flood level; between it and the river there is a retaining wall 6 feet thick at bottom and 2'-3" at top, 30 feet breadth of embankment and 1'-10" thickness of brick wall of the pump room itself; there is no actual leak, but percolation by sweating and due to no fault of the contractor as far as I can see. We might prevent the water percolating the walls (by puddling them outside) but not the floor, I have therefore advised the Chairman to arrange for a small Donkey-pump to be driven by steam ~~from~~ the main boilers

to

to keep the room dry.

I have the honor to be,

Sir,

Your most obedient servant,

[Signature]

Sanitary Engineer to Govt.

RBW

*505.3 -
60826/97*

When given for copying
When copied *12/17/189*
When examined
When signed *2/12*

READ AGAIN G.O., No. , DATED
189

CURRENT No.

ENCLOSURES TO C. No.

ORDER OF GOVERNMENT A A A A A A A

LETTER OF GOVERNMENT.

STATEMENT WITH DITTO.

PAPERS NOT FILED UP, BEING MEANT FOR DESPATCH
IN ORIGINAL.

N.B.--

A = Copy in full.
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