

Local & Munl. (1898) Department.

MISCELLANEOUS.

G.O., No. 1176 m

DATED 4-7-98

INDEXED.

9/7/98

[Despatch Abstract.]

Tuticorin Water Supply.

According letter from the Sanitary Engineer stating
that the estimates for a gravitation scheme for the
_____ ^{had already been} were prepared and forwarded to the
Sanitary Board.

BACK PAPERS.

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

FURTHER PAPERS.

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

Local & Munl. (1898) Department.

CURRENT No. 2042

From

The Sanitary Engineer to Govt.,
Fort St. George.

No. 1075

Dated 13th. June 1898.

Received

Registered

Enclosures Two

Spare copies.

SUBJECT.

Tuticorin Water Supply.

Stating that the estimates for a gravitation scheme for _____ were prepared and forwarded to the Sanitary Board and that the scheme is referred to in the Sanitary Board's Resolution as scheme E.

Misc

Order No. 1176 M. M. S. 4-7-98.

Recorded.

1.2
25/6/98

11/6/98

20/6. 9/10/98

BACK PAPERS.

G.O.	No.	Department.	Date.
10	1076-77	Public Works	21-11-97
10	1031	Public Works	8-6-98
10	847	Public Works	15-5-96

FURTHER PAPERS.

G.O.	No.	Department.	Date.

Enclosure No. 1075 of 1898

S. E. 500-15-3-97.

GOVERNMENT OF MADRAS,
Office of Sanitary Engineer to Govt.,
Fort St. George, 9th. September 1896.

OFFICE NOTE

BY

THE SANITARY ENGINEER.

Tuticorin Water Supply Scheme

In reference to the President's Note
No. 131.S. of 21st. August 1896.

In the undersigned's note of
the 20th. August it was shewn that the
cost of a scheme without service reser-
voir & filters would be Rs 268334 and the
annual cost of this with pumping charges
to the Municipality would have been as
follows-

Interest and Sinking fund on	
$\frac{268334}{2} \times 5.96 \text{ p.c} =$	Rs 7996
Pumping & other charges =	4200
Staff at head works =	864
Cost of maintenance of	
pipes &c ,say-	1910
	Rs 14970

The President now desires the Sanitary
Engineer to say definitely whether a
cheaper scheme can't be devised; the
following

following scheme is suggested-it is not
a scheme that the U/S thinks a desirable
one and it is more in first cost ^{though} less
annual cost .The scheme is the same as
as head works & conduit govt- no reduc-
tion in these items is possible if Tuticorin
is to have a reasonable supply of
water- but in regard to the remainder of
the scheme the design is completely
changed -The service reservoir ,the filter
and the pumping House & Engine are all
omitted- the conduit is connected to the
existing reservoir which holds 56608 gal-
lons-about 1/6th of a day's supply.This
can be extended, if required.

2. From this the pipes are laid
underground below the level of the
hydraulic gradient/starting from three
feet above outlet pipe/ from the bottom of
the reservoir .This causes the pipes to
be laid at very low levels and the depth
of cutting at some places will be over 16
feet.

3. The pipes will always be full
of water and for each fountain is now
substituted a pump so that the inhabitants
themselves must pump all the water they
require -this will tend to economy no
doubt. No hydrants can be used & this is
further saving . The cost of the excava-
tion is great as water is about 6 feet be-
low ground at most & the excavation will
cost(it is sand & must be planked) at
least Rs 1 per C.yard- this makes the lay-
ing & jointing very expensive & the com-
parative statement which is now added in-
red to the previous statement shews ex-
actly the anticipated cost of each portion

the work & that the total will be

(Initialed) J.A.J.

273,000.

(True copy)

But with pumping charges omitted (the inhabitants having to do this themselves) the annual charges would be thus

278000	x 5.96	-----	3284
2			
Staff at head works	-----		864
Maintenance	-----		1952
Total Rs			11100

Sanitary Engineer to Govt.

The annual saving, it will be seen, is Rs 5870 under the expenditure in reference to the scheme without filters but with the pumps which the Sanitary Engineer mentioned at the beginning of this note; the question is whether people in Tutinborin had not better pay this difference than do all the pumping themselves.

5. In any case the Sanitary Engineer has no other scheme to put forward - the cost of the head works, reserve tank & conduit-all of which must be built-to prevent any great reduction & no scheme without this would leave Tuticorin any better off than it is now.

6. Some definite expression of opinion is therefore requested to enable the undersigned to submit a scheme to Government.

(Signed) J.A. Jones

Sanitary Engineer to Govt.

P.S. It should be noted that the gravitation scheme can at any time be altered into a pumping scheme -the pumping station be first added then the service reservoir and filters, as funds permit -this, I think, is the only solution of the question before the Board

Particulars	1	2	3	4	5
Balance at the head of account	6602	6602	6602	6602	6602
Transfer to the existing classes	1200	1200	1200	1200	1200
Transferring from description classes	2147	2147	2147	2147	2147
Reserve class	23028	23028	23028	23028	23028
Get like & take those in Reserve class	4977	4977	4977	4977	4977
Connecting classes between the Reserve class & between each of them & outside					
Transfer to	41472	41472	41472	41472	41472
Transfer from different components for future	32880	32880	32880	32880	32880
Class under Reserve	26223	26223	26223	26223	26223
Transfer to other classes	2987	2987	2987	2987	2987
Next to the class	2000	2000	2000	2000	2000
Transfer from for land, fencing &c	12162	12162	12162	12162	12162
Get out & out & out & out of the existing Reserve					
Transfer from Reserve	20600	20600	20600	20600	20600
Get out & out & out & out of the Reserve	63230	63230	63230	63230	63230
Get out & out & out & out of the Reserve	14000	14000	14000	14000	14000
Get out & out & out & out of the Reserve	6201	6201	6201	6201	6201
Get out & out & out & out of the Reserve	41603	41603	41603	41603	41603
Get out & out & out & out of the Reserve	6201	6201	6201	6201	6201
Total	213140	213140	213140	213140	213140
Subtotal	213140	213140	213140	213140	213140

Juticorin Water Supply Schemes

Comparative Statement Showing the cost of the various schemes prepared

Particulars	Amount of scheme for 15 gallons per head complete scheme 4 months Reserve		Amount of scheme for 10 gallons per head complete scheme 4 months Reserve		Comparison between cols. 2 & 3		Amount of complete scheme for 10 gallons per head increasing the capacity of Reserve Tank. 9 months Reserve		Comparison between cols. 2 & 6		Amount of scheme for 10 gallons per head with the filters & service Reservoir omitted but with pumping Reserve		Comparison between cols. 9 & 6		Amount of scheme for 10 gallons per head with the filters & service Reservoir omitted (pumping scheme)		Comparison between cols. 12 & 9		Remarks
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Outlet & Valve House at the head of conduit		6,605	6,605	200		6,605	200		6,605	200	200	6,605	200	200	6,605	200	200	6,605	Outlet & Valve House at the head of conduit
Alteration to the existing sluice		1,200	1,360	160		1,360	160		1,360	160	160	1,360	160	160	1,360	160	160	1,360	Alteration to the existing sluice
Constructing new Irrigation Sluice		2,147	2,147	741		2,147	741		2,147	741	741	2,147	741	741	2,147	741	741	2,147	Constructing new Irrigation Sluice
Reserve Tanks		23,028	23,028	000		52,700	29,672		52,700	29,672	29,672	52,700	29,672	29,672	52,700	29,672	29,672	52,700	Reserve Tanks
Outlet pipe & Valve House in Reserve Tanks		4,977	4,977	777		4,977	777		4,977	777	777	4,977	777	777	4,977	777	777	4,977	Outlet pipe & Valve House in Reserve Tanks
Connecting sluices between the Reserve Tanks & between each of these & conduits						7,240	7,240		7,240			7,240			7,240			7,240	Connecting sluices between the Reserve Tanks & between each of these & conduits
Masonry Conduit		44,472	44,472	27,411		44,472	27,411		44,472	27,411	27,411	44,472	27,411	27,411	44,472	27,411	27,411	44,472	Masonry Conduit
Filter Bed		32,886	25,000		7,886	23,160	9,726												Filter Bed
Chambers for gill arrangements for filters						11,360	11,360												Chambers for gill arrangements for filters
Clear water Reservoir		26,223	24,210		2,013	24,210	2,013												Clear water Reservoir
Engine & Boiler House		7,987	7,987	787		7,987	787		7,987	787	787	7,987	787	787	7,987	787	787	7,987	Engine & Boiler House
Wood & Stone shed		2,000	2,000	000		2,000	000		2,000	000	000	2,000	000	000	2,000	000	000	2,000	Wood & Stone shed
Compensation for land, fencing &c		12,162	12,162	890		20,298	8,136		20,298	8,136	8,136	20,298	8,136	8,136	20,298	8,136	8,136	20,298	Compensation for land, fencing &c
Inlet & outlet arrangements at the existing Reservoir																			Inlet & outlet arrangements at the existing Reservoir
Engine, Pumps & Boilers		30,600	29,400	1,200		29,400	1,200		29,400	1,200	1,200	29,400	1,200	1,200	29,400	1,200	1,200	29,400	Engine, Pumps & Boilers
Supply & delivery of pipes		69,480	63,330	6,150		63,330	6,150		63,330	6,150	6,150	63,330	6,150	6,150	63,330	6,150	6,150	63,330	Supply & delivery of pipes
Laying & joining		14,000	13,460	540		13,460	540		13,460	540	540	13,460	540	540	13,460	540	540	13,460	Laying & joining
Tools & plant 2 1/2 %			6,501			7,647			7,647			7,647			7,647			7,647	Tools & plant 2 1/2 %
Establishment		41,663	nil		28,661	nil		26,369											Establishment
Contingencies 2 1/2 %			6,501			7,647			7,647			7,647			7,647			7,647	Contingencies 2 1/2 %
Total		3,19,430	2,73,140	460	46,450	3,30,000	56,568	45,998	2,68,334	46,450	46,450	3,30,000	56,568	45,998	2,68,334	46,450	46,450	3,30,000	Total
Deduct		2,73,140			160	3,19,430	45,998												Deduct
		46,290			46,290	10,570	10,570												
office of San'y: Engr to Govt																			
(True copy)																			
(sd) J. A. Jones																			

Office of San'y. Engr. to Govt.
Fort St. George 11th Sept 1896

(True copy)
San'y. Engr. to Govt.

(sd) J. A. Jones
San'y. Engr. to Govt.

* This is the cheapest scheme as maintenance inclusive of interest is Rs 3870/- less than that in col: 9 vide note.

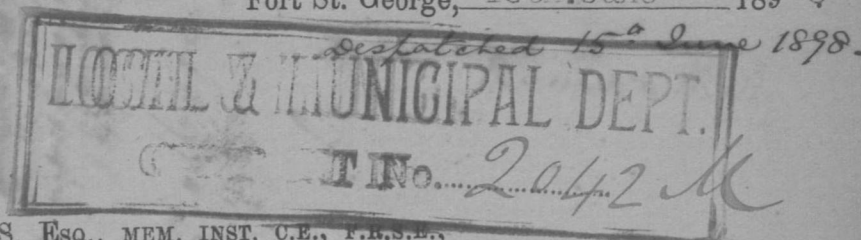
S. E. 1,000-6-12-97.

No. 1075

GOVERNMENT OF MADRAS.

OFFICE OF SANITARY ENGINEER,

Fort St. George, 13th. June 1898



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 G.O.No.1031 .M.Mis .dated 8th.

June 1898, I have the honor to point out that the estimates for the gravitation scheme were prepared and forwarded to the Sanitary Board and the scheme is referred to in the Board's note as scheme (E) which is not recommended either by myself or the Board.

2. In forwarding that scheme to the Sanitary Board, I sent a note and a comparative estimate of all the schemes prepared for Tuticorin; copies of these I have the honor to place at the disposal of Government.

3. I note that two sums of Rs 1,10,000 and Rs 100,000 for loan & grant respectively have been entered in the budget for 1898-99 as likely to be required in 1899-1900 for the construction of Tuticorin Water Works -if Government can soon decide definitely on a scheme, it would be advantageous (even if it could not be gone on with in 1899) as we would be in a position to prepare working plans, schedules and

estimates

But no thing can
be done in this
direction until
the financial position
is clear - Vesp. 1020m Ray C
1698

estimates.

I have the honor to be,

Sir,

Your most obedient servant,



Sanitary Engineer to Govt.

When given for copying _____
When copied _____
When examined _____
When signed _____

189

READ AGAIN G.O., No.

DATED

189

CURRENT No.

ENCLOSURES TO C. No.

ORDER OF GOVERNMENT

LETTER OF GOVERNMENT.

STATEMENT WITH DITTO.

PAPERS 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.