

(1) Number of pages 172
 (2) Date of repair 22 Jan 1987
 (3) Initials of the Referencer lms

TAMIL NADU ARCHIVES

VERNMENT OF TAMIL NADU

PUBLIC WORKS-DEPARTMENT

G.O. No.	507-W	Press.
B.P. No.		Mis.
Dated		25-2-1881

be folded or roughly handled

507/1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

25th February 1881, No. 507 W.

Buildings and Roads.
Civil Works.

Read the following papers :—

- No. 98. Proceedings of Government, Military Department, dated 26th September 1878, No. 5,023.
- No. 98-A. From District Engineer, Presidency, dated 17th October 1878, No. 4,238.
- No. 98-B. From Executive Engineer, Presidency Division, dated 2nd December 1878, No. 5,036.
- No. 98-C. From Superintending Engineer, Third Circle, dated 6th March 1879, No. 1,153.
- No. 98-D. From President, Municipal Commission, dated 17th April 1879, No. 566.
- No. 98-E. From Accountant-General, dated 10th May 1879, No. $\frac{I.A.B.}{70}$.
- No. 98-F. From President, Municipal Commission, dated 12th July 1879, No. 209.
- No. 98-G. From President, Municipal Commission, dated 5th August 1879, No. 1,029.
- No. 98-H. From Superintending Engineer, Third Circle, dated 13th September 1879, No. 5,228.
- No. 98-I. From President, Municipal Commission, dated 30th October 1879, No. 2,300.
- No. 98-J. From Superintending Engineer, Third Circle, dated 17th January 1880, No. 267.
- No. 98-K. From Superintending Engineer, Third Circle, dated 4th February 1880, No. 597.
- No. 98-L. From Superintending Engineer, Third Circle, dated 8th March 1880, No. 1,205.
- No. 98-M. From Sanitary Commissioner, dated 7th December 1880, No. 1,463.
- No. 98-N. From Superintendent of Works, Presidency, dated 9th February 1881, No. 4,099.

No. 99. ORDER THEREON, 25th February 1881, No. 507 W.

AFTER a full consideration of the foregoing papers the Government see nothing in the ascertained quality of the respective waters of the Red Hills Tank and of the Seven Wells to induce them to abandon the supply to the Fort Government buildings, &c., now met from the latter.

2. Attention should be paid to the Seven Wells filtering apparatus and also to the actual surroundings of the wells. The exceptional results of the analysis of No. 9 well water indicates some removable source of impurity.

3. Seven Wells water should not, however, be supplied to private parties to the detriment of municipal income.

(True Extract.)

Major. R.E.,
Under Secy. to Govt., P.W.D.

To the Superintendent of Works, Presidency.
" Military Department.
" Financial "

Exd. E. C. Shunker.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Capt. of (1881) *Madras*
PUBLIC WORKS

To
THE SUPERINTENDENT OF WORKS,
PRESIDENCY,
Sec. Ac. &c.

Dated February, 1881.

Resd

Encl.

Resd

G. O. No. 1881, No. 507 W.

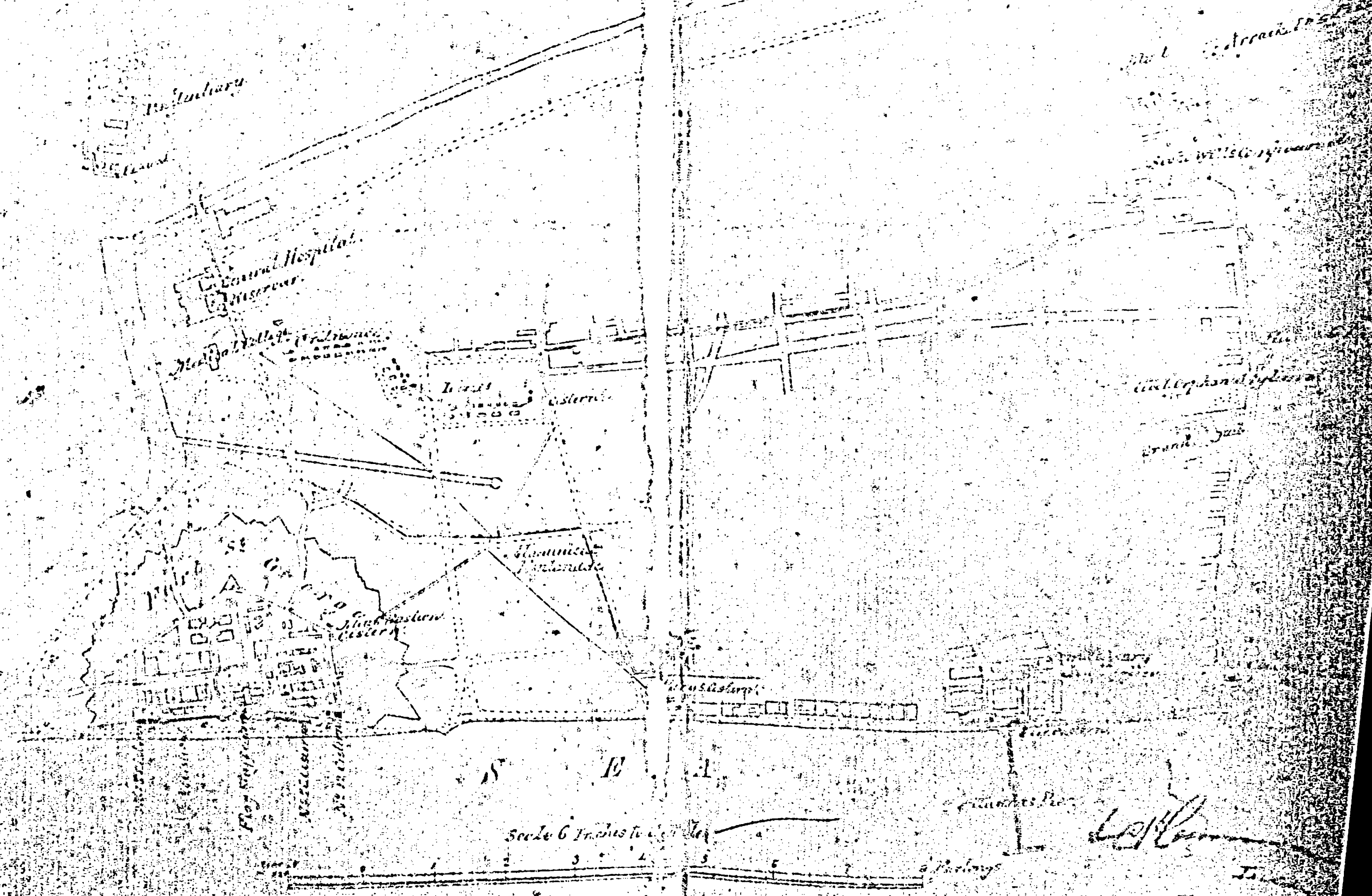
FEBRUARY.

No. 98-93.

Kindly of water in the buildings in Fort St. George, finding that there is nothing in the available supply of the waters of the Red Hills Tank and Seven Wells to supply the same from the latter.

Survey showing the main and
Service Pipes supplying different General
Buildings from the Wells of Red Hills
Water Works, Madras.

Reference
Line laid down in the Seven Wells Water Pipe
Red Hills. D^o the Red Hill D^o D^o
A D^o Junction for Penitentiary
B D^o D^o for General Hospital
C D^o D^o for Fort St. George
D D^o D^o for Court & Office Copperage
E D^o the Seven Wells Water Cistern



Signature
J. S. S. S.

N^o 10 of 80

SURGEON-GENERAL'S OFFICE,
Indian Medical Department.

Genl. St. George, Esq.
31st March 1880

Dear Capt. Hammick,

I have just
got the Chemical Inst Report
on the two waters "Red Hill"
& "Seven Wells". The former
is quite recent, that in
the "Seven Wells" somewhat
old. Both are fairly
potable waters but the
"Seven Wells" is perhaps,
on the whole the better,
notwithstanding the
large amount of solid.

With respect to Carbide
filtering.

by you

Respectfully
Signed
Capt. Hammick to

Capt. Hammick to

Medical Department, Fort St. George,
Surrendered Office,
FORT ST. GEORGE, March 29th

My dear Hammick
I am sorry I can find
no information in this
office bearing upon the
matter referred to in your
letter of the 27th Inst.

I think very likely the
Surgeon General of the S. A.
might be able to tell you
or the District Engineer.

Yours Truly
C. Hammick

Commissariat - Supplies.

MILITARY DEPARTMENT.
50/23

Letter no 5418 from
the Commy Genl. reporting
that Herbyells water
is not now connected
with the Commissariat
Stores -

Submitted to R.G. Sept.
the Governor, with reference to
his Grace's note in re to
draft of O.G. no 4507 &
31 August 1878.

Wm.
Colonel,
Government.

The Public Works Department,
with a note by His Grace the Governor.

Commissariat Supplies.

MILITARY DEPARTMENT.

No. 5023

Proceedings of the Madras Government,
28 Sept. 1878

Read the following paper:—

From the Commissary
General, No. 5016, dated 13th Sept.
1878, stating that the Seven Wells
water is not now connected to
the Commissariat Stores.

Order. - Recorded.

(True Extract)

Minister: Colonel
Secretary to Government.

To The Public Works Department,
with a note by His Grace the Governor.

St. 6637 of 30 Sept 1878.

5/10

Memo

The District Engineer, Presidency
is requested to forward a statement
of all places now supplied with
Seven Wells water and those sup-
plied before 1874, showing the cost
of the establishment now maintained
as compared with that in the year
first mentioned—

By D. Montgomery
Major R.E.
Under Secretary to Govt. W.H.D.

The Dist. Engr
Presidency

C.E. No 6637
730/9/78

C.E. No. 663 I'

9/20/9/78

11706
C.E. No. 663

57
No. 5317 of 27. Nov. 78.
From the Ch. Engr. Presidency
No. 4238 of 17. Oct. 78.

The Executive Engineer, Presidency is
requested to explain promptly, for the
information of Govt, the necessity
for the items of expenditure in the
statement marked with blue pencil.
also to report whether those marked
in blue might not be reduced.
Apparently all the references remain
the same, although the Red Hills Water
has been introduced at the Hospital
and not at other places.

By W. H. Russell
Sd/- Chief Engr.
P. M. D.

The Executive Engineer
Presidency with statement

1202
Subd. A. S. P.

Immediate

No. 5036.

From

The Executive Engineer,
Presidency Division.

To,

The Dy. Chief Engineer,
P.W.D.

Sir,

With reference to your memo
no. 5017 of 27 Nov. 1878, I have the honor
to submit to you (in original & the
returned) a copy of a letter of 1578 from
Lieut. Plummer in charge of the works
at the ... I agree with him in
all that he has stated. The only re-
duction which can be made in the
establishment without seriously im-
pairing its efficiency is to substitute
as Lieut. Plummer proposes, three
additional cock-timers for the Head
Constable and three constables now
employed. The saving thus effected
would amount to over Rs. 200 per
annum. Should Govt. think fit
to make this change, I must state
the two junior cock-timers now
employed only Rs. 4. 10. 4 1/2 per
annum.

Encls.

- 1. Original letter.
- 1. Statement.

Ch. Engr. 5036/1878

manum, may be permitted to draw
the full pay of each turner viz Rs 6
each per mensem.

& have the honor title.

By,
Your most obedient servant

Thompson Major R.
Executive Engineer
P. O. Secy. Div.

Chas. 2

Decr. 15/80.

Recd.
10/1

L. 6. 4507-31.8.78-4.8.
C.E. 663 II of 30-9-78.

1178-12
No. 1348

From.

The Engineer,
Presidency.

No. 5016

Order of 1st of Dec 78.
Recd 2

Enc. 1.

See also other marks

Submits report re.
making the connection
of the establishment of
the

12.7.78.

R.M. 8.

Note by the Chief Engineer 10/3

The Chief Engineer
does not believe that any
considerable saving can
be effected in the es-
tablishment at the
Sreen Nello until all
the Public Buildings
are supplied with water
from the Red Hill
Tank.

At present the Red
Hill Tank cannot be
looked upon as a
reliable source of supply
as was shown during

the recent draught
and again at the end
of last year when the
Tank received an
abundant supply and
was in consequence for
some time in considerable
danger.

Edw. Smith Esq. R. S.
Chief Engineer.

Decr. 1878.

R.M.T.
From the Executive Engineer Presidency
No 5036 d/2 December 1878. *Edw.*

Transmitted to His
Grace the Governor with
note by the Chief En-
gineer.

Edw. Smith Esq. R. S.
Chief Engineer.
R.M.T.

Decr. 1878.

7. Wells 27/10
 apparently the cost
 of the water distillation
 inspection of repairs in
 1899. 1,000 gallons

on this statement 27/10
 27/10
 27/10

I am at a loss to understand
 the necessity for the expenses
 marked with blue pencil

+ those marked in red it
 appears to me might be reduced

Apparently all expenses concern
 the same - altho Red Hills has
 been introduced at the Hospital - if
 not at the place -

27/10
 27/10
 27/10

27/10
 27/10
 27/10

27/10
 27/10
 27/10

27/10
 27/10
 27/10

7. Wells 476
apparently the cost
of the water distributed
in respect of repairs
is 3.6 ^{cents} per 1000 gallons
if the quantity daily
raised was usually
given at 14,000 gallons
= 4,200.000 gallons
per month -

From this 972.699
gallons are charged
per side statement
amount - and apparently
producing 862.12.8 -
but this only 115 R.
appear to be cash -

This supply affects
the remaining water
works - and it may

be desirable to discontinue
the Govt supply except to
Fort & Shipping —

Let me know through
which of depts. secured
as supplied in Oct. are
secured at special
rates at special
cost —

What are the requirements
or contracts of any one
which they are supplied

Whether Municipal
Bodies or private people
have an interest in
any section of the
city —

13/12
R.

No 5653

Memorandum

9/11

The cost of the water distributed
in respect of repairs &c appears to be
3 or 6 Pies per 1000 gallons if the
quantity daily raised was correctly
given at 140,000 gallons; that is
4,200,000 gallons per month.

From this 972,699 gallons are
charged for as shown in the statement
accompanying Major Ross Thompson's
letter No 5216 of the 12th instant, and
apparently producing Rs 862.12-8
of which however only 11 Rs appear
to be cash.

The supply affects the Municipal
water works and it may be desirable
to discontinue the Government supply
except to Fort and Shipping.

The Chief Engineer is therefore
directed to enquire
(a) which of the Departments named

as supplied in details are provided
all Provincial and which at Imperial
cost.

(b) What are the engagements or
Contracts of any on which they are
supplied.

(c) Whether Municipal mains or pipes
have been or not for fire any and
which of the buildings.

Sgt. A. T. Col. M.
Ching

16 Dec 1878.

S. E. Smith Circle
with original file.

no.

From,

The Officer in charge,
Presidency D.

23/18

To,
The Sup. of Engineer,
S. Circle.

Sir,

With reference to Chief Engineer's
memo. no. 5653 dt. 16 Dec. 78, communicated
to me with your no. 4984 dt. 20 Dec. 1878
for report, I have the honor to inform
you that with the exception of the first
three items shown in the Statement sub-
mitted in October last, the receipts
of which are remitted monthly to
the Treasury on the authority of the
Military Paymaster, the rest are
supplied with the 7 wells water free
of cost and consequently their cost
is not charged to any head of
service.

The 7 wells Establishment which
supplies

Incl.

2 Statements.

supplies water to the Institutions specified in the Statement in question is paid entirely by the Military Department.

With regard to the engagements or contracts adverted to by the Chief Engineer, I beg to state that none exists, with one exception i.e. the Arrack Distillery in which it is presumed the Collector of Madras entered into an agreement with the Distillery contractor.

I beg to enclose a list showing the names of the buildings near which the Municipal main or pipes pass.

A copy of the Statement which was submitted in October last is now forwarded, showing therein

in red ink which of the buildings belong to Imperial and which to Provincial.

I have &c.

9/10

No. 1153.

3rd Grade
Chief Superintendent Engineer's Office.
Cable Station
Saint Thomas Point, 6th March 1879
Dy. J. J. J.
6/90

From

THE SUPERINTENDING ENGINEER.

Chief Superintendent 3rd Grade.

To

The Chief Engineer
Public Works Department

Sir,

Enc 2.

With reference to your memo-
randum No 653 of 16th December 1878,
I have the honor to inform you, that
with the exception of the first three
items shown in the statement submit-
ted by the District Engineer Presiding
in October the receipts which
are remitted monthly to the Treasury
on the authority of the Military Pay-
master - the rest are supplied with
water from the seven wells free of cost.
The heads of services to which these
items appertain are shown in the en-
closed copy of the statement for October
above referred to.

2. The 7 wells establishment
is paid entirely by the Military Depart-
ment.
3. Except the agreement believed
to

to have been entered into by the
Collector of Madras with the District
Contractors - there are no other en-
gagements or Contracts for ^{the} supply
of the water.

4. A List showing the Buildings
near which the Municipal main or
pipes pass - is enclosed.

I have the honor to be
Sir

Yours most obly servt

W. R. R. R. R.

Major R. B.
by Supt Engineer, B. Madras

Circulated to His
Grace the Governor with
reference to his order of
the 13th December last.

From the Sup^r Engr^s &c.

Vol 1153.

1
Dated 6th March 1879.
D. J. G. }
C. D. J. }

Enc 2 -
Dated 15th 11-53
Seven Million Water
Supply - Forward
copies of statement
regarding the supply
of - to the different
Depart^s -

Circulated.

List showing the names of the Buildings near
which the Municipal Main or pipes pass -

Private individuals.
Shipping (Private)
Commissary General's Office.
Commissariat Granary.
— do. — Dhooly shed
— do. — battle -
Granary, cooperage, Military guard.
Warlike Non Commissioned off^r, Const. det^s.
Master Attendants Office & Pur
Stamp Office
do. Military Guard.
D. J. M. Lascars, Beach.
Madras Bank, Military guard.
Marine Police.
Justice Jail.
High Court.
Camp Equipage Depot.
Body Guard.
Collector Sea Customs
Ordnance Store Lascars
Harbor office -
Govt Telegraph Office
General Hospital
Military Hospital
Medical College
Ordnance Lines.

12-12-78. 5653.

11-5-79.

Custom House Office

Issue of 7 wells water for the month
of Oct 1878.

15/10

Quantity
in
fullons. Rs. Rs. P. Remarks

Arrack Distillery.	22056.	12	4	11	} Cash payments
Private Individuals.	7650.	6	7	9	
Shipping (Private)	46560.	97	—	—	

Cont. Genl. Office	675	0	9	0
Cont. granary	765	0	10	2
Shooly shed	620	0	8	3
Cattle	56810.	47	5	6

granary of Cooperage.
Mule guard - 5580. 4 10.5

Warrant & Non

Cont. Officers of the.

Cont. Department 22320. 18 97

Master Attendants

Office

1870 1. 8. 11

Stamp Office - 290. 0 3 10

Mule guard. 1860 1 8 10

Dr. Mr. Cascaro on the

Beach - 290 0 3 10

Madras Bank Ind.

1860 1 8 10

Marine Police. 1680 1 6 5

Justice Jail. 12400. 10. 5. 4

High Court. 405 0 5 5

Camp Equipage

950. 0 12 5

1874 206. 1. 5

181641.206-1-5

Govt. Body Guard 1860. 1.8. 10
 Collector Seafood 715. 9. 6
 Ord. store Casuarina 445. 5. 11
 Harbour Office 6200. 5. 28
 Govt. Tel. store Dept
 Police Guard - 620. 0. 83
 Govt. Tel. Office 4650 3. 14.
 App. Custom House
 Office 10230. 8. 85
 Govt. Store - 57866. 49. 14.3
 Govt. Store - 19218. 16. 14.3
 Bullet Factory 8500. 7. 1. 4
 Med. store - 45961. 38. 4. 10
 Govt. Store Telus. 20925. 17. 7.
 Govt. College - 10992. 9. 2. 4
 Ord. Lines - 40856. 340. 7. 7
 Govt. Powder Factory 84275 70. 3. 8
 Govt. Store - 105033. 87. 8. 5
 Gallons. 972699. 862. 12. 8

This supply is exclusive of the supply
 of to the Garrison.

10 Dec 78

by

P.S.

No 5653.

C.M.D.

Memorandum.

12/11

The cost of the water distributed
 irrespective of repairs &c appears
 to be 3 as 16 Pies per 1000 gallons if the
 quantity daily raised was correctly
 given at 140,000 gallons, that is
 4,200,000 gallons per month.

From this 972 699 gallons are
 charged for as shown in the State-
 ment accompanying Major Prof
 Thompson's letter No 5216 of the 12 inst
 and apparently producing Rs
 862-12-8. Of which, however only
 116 Rs appear to be cash.

This supply affects the municipi-
 pal water-works, and it may be
 desirable to discontinue the Govt
 supply except to Fort and shipping.

The Chief Engineer is therefore
 directed to enquire
 (a) which of the Departments named
 as supplied in October are provided
 at Provincial and which at Imperial
 cost.

(6)

12/21

- (b) What are the engagements or contracts if any on which they are supplied.
- (c) Whether municipal mains or pipes ^{pass} near or not far from any and which of the buildings.

Signed - E. A. Ford Colonel R. E.
 16 Dec 1878. Robert Ensign P. M. D.

No 4934.

True copy forwarded to the

Divisional Officer, Presidency
for report.

Supd. Engrs Office, 3 lines
 22 December 1878.
 Dec 21st

Messrs
 Asst Engineer
 Asst Surveyor
 This is to certify
 that

To the Superintendent
 of the Department
 of Public Works
 at the report on the
 above

24 Dec 78

J. C. H. ...
Per A.

2030 5/26

High water to have
depths of 10 ft. at
point noted as has
last summer. 7' 11/3
will be S. S. he
able to supply it, it
must be obtained
elsewhere.

P. 70 26/3-11/2

See - the President
Municipal Comm.
-mission, will know

~~Sept~~

27.3

No 1130. of 28. March 77.

P.M. Sept.

Memorandum.

50/51

The undersigned has the honour
to request that the President, Munici-
-pal Commission, will be so
good as to furnish for the inform-
-ation of His Grace the Governor,
a statement, showing the public
buildings, within Municipal limits,
which are assessed to water-rate,
on account of water supplied from
the Red Hills Tank.

Hof J. L. L.
Asy. Secy.

To

The President, Municipal Co

P. H. D.
No. 1528 1/89 April 1879.

REVENUE DEPARTMENT,

Municipal Office,

No. 566

Madras, 17 April 1879.

Sir,

L. R. Burrows.

President. Mun. Commission

Madras.

Sir,

Colonel J. H. M. Shaw-Stewart

Ag. Secretary to Govt. S. P. W.

Sir,

I have the honor to acknowledge your Memorandum No. 1130 of the 28th ultimo.

As the list is a rather voluminous one and has already been furnished in duplicate to the Collector of Madras and the Accountant General

H. and L. T.
188.

The Accountant General.
Madras

General, and as I am very short-handed
at present, I should feel obliged if you
would obtain one of the above copies
which are probably no longer required
in those offices.

I have the honor to be,
Sir,

Yours most obed^t servant,

Wm. Hunter
President Muni. Comm.

TO BE RETURNED
WITH REPLY.

P. H. S.

No 1528 d/19 April 1879.

Letter from the President Muni-
cipal Commission, Madras.
No 566 d/17 April 1879.

+ with Memo.
No 1130 d/20th
Mar: 79 (to
be returned)

Forwarded to the Accountant
General, Madras with a request
that he will be so good as to
furnish a copy of the list referred
to. The document will be returned
after the required information
has been taken.

(of P.
ag. H.S.)

The Accountant General.
Madras

Treasury Act

DEPARTMENT.

No. *SAB*
70

50/20
Fort Saint George,
Accountant General's Office,
10th May 1879.

FROM THE ACCOUNTANT GENERAL
TO THE GOVERNMENT OF MADRAS,

TO THE *Acting Secretary to Government*
P. W. Department.

SIR,

With reference to your Under Secretary's
Memo No. 1528 dated the 19th April last, I
have the honor to forward herewith the list
therein called for, and to request that it may
be returned to this office when no longer
required.

I have the honor to be
Sir

Your most obed^t servant

C. F. F. F. F.

Off^r Accountant General.

62

50
21

Ch. Erlanson

* Copies of these letters sent to the President & Municipal Commission
for the month of Feb'y. submitted. The undersigned has the honor to request
by the President that information may be furnished as to
Eng. Presidency -

which of the buildings therein entered are
exposed to water rate on account of water
supplied from the Red Hills Tank.

2. The entry of the letter 'M' in red ink against each building will suffice.

3 The description of buildings in the list furnished by the Accountant General is different from that entered in the statement furnished by the Executive Engineer Presidency and it is not clear which of the buildings referred to in the latter are entered in the former.

(By order)

15th May 1879.

Signed J. Pincus - Major R.E.
by Under Secy to Govt. W.D.
President Municipal Commission
Madras
With Seal

Dated	/o	{ No. of answer
Recd.		
Ansd.		

Guidance

I have now done the
best I could for you,
hoping that with
many his returns &
others will be enjoyed

Shreey. H. T.
 DEPARTMENT.
 ACCTY. GENL'S OFFICE, MADRAS.
 No. 1188
70.
 FROM

No. 100

From

THE ACCOUNTANT GENERAL, MADAGASCAR

[illegible]

+ Kuch. 2575-17/27

H. & L. T.
13 E.

REVENUE DEPARTMENT

Municipal Office,

R. No. 909

March 12th July 1879.

From

L. R. BURROWS,

President, Municipal Commission,

Medan.

To

Major J. Pennington, R. E.

Adj. Under Secretary to Government.

I have the honor to acknowledge
your Memorandum No. 1831 of the 15th of May last,
and regret that pressure of business has prevented
me from replying to it earlier.

2.

The lists therewith forwarded, are
herewith returned marked as desired as far
as the description therein contained enabled
this office to trace the several premises in its
registers. Some few of the items are left unmarked
owing to the vagueness of the description.

3.

It would have been more satis-
factory if the premises were specified by their
situation (Corner number & Street) as given in the
list furnished by me to the Accountant General,
and, in the absence of such specification, some
of the items have been marked upon mere
assumption.

I have the honor to be,

Sir,

Your most obedient Servant,

L. R. Burrows.

President, Municipal Commission, Medan.

Enc.

July Co. 4507 - 31.12.70
 Ch. 618.T. - 30.9.78.
 Ch. 5653 - 17.12.70.
 Ch. 1130 - 20.3.79
 Ch. 1520 - 19.4.79
 Ch. 1831 - 15.5.79

Encl. sent
 to Secy
 vide No. 25

25/11/79
 13/11/79

R. 70

No. 2543-2/17 July 79
 1/79

Letter from the President, Municipal
 Commission Madras. No. 909 of 12th
 July 1879.

The list referred to in para 3,
 is herewith forwarded together with
 those returned with the above to
 enable President Municipal Commission
 to furnish complete information on
 the subject. -

By order
 15/7/79
 Ag. A. S.

The President Municipal Commission
 Madras
 with enclos.

R. No. 1029

Municipal Office,

Madras, 5th August 1879.

From

L. R. BURROWS,

President, Municipal Commission,

Madras.

To

Major J. Pennington R. E.

By Under Secretary to Government, P. W. D.

Sir,

I have the honor to acknowledge your Official Memorandum at No. 2545 of the 17th ultimo, together with the three enclosures hereto returned.

2. I have marked with the letter "W" every item contained in the List dated the 10th of December last which, by the description therein given, could be possibly or approximately connected with the List furnished by this office to the Accountant General and to which is charged the Municipal Water Rate.

3. The items not so marked with the exception of that relating to the Harbour Office, which is exempted from taxation under the Municipal Act, are not, from their description, capable of being connected by this office with any building, assessed or otherwise.

I have the honor to be,

Sir,

Your most obedient servant,

L. R. Burrows

President, Municipal Commission, Madras.

End.

July 20 1878 31-7-78.

CE 663 J. 30-9-78.

CE 555 — 17-12-78.

CE 1130 — 25-3-79.

CE 1528 — 19-4-79.

CE 1831 — 15-5-79.

CE 2545 — 17-7-79.

W.D.
1878

1878

Report to the Supply Comd. 3rd Regt
for report as to what reduction could be
effected in the establishment employed
at the New Well, by discontinuing the
supply of water to the buildings now supplied
the water meter by the Municipality for
and the water (under the statement, please)

(Sg²) J. P.

Issue of 7 Wells water for the month
of October 1878.

1878

	Quantity in Gallons	Rs 20 B	Remarks
Arack Distillery	22036	12 4 11	Leach payments
Primates individuals	7660	6 7 3	
Shipping (Primates)	16560	97 - -	
Comptroller General's Office	675	- 9 - 1	
Comptroller General	765	- 10 2 1	
Shoof ched	620	- 8 5	
Leather	66,810	47 5 6	
Comptroller & Cooper's	5580	- 10 5	
Comptroller & Cooper's	22320	18 3 7	
Officers of the Comptroller's Dept.			
Comptroller & Cooper's	1870	1 8 11	
Comptroller & Cooper's	290	- 3 10 1	
Comptroller & Cooper's	1860	1 8 10 1	
Comptroller & Cooper's	290	- 3 10 1	
Comptroller & Cooper's	1860	1 8 10	
Comptroller & Cooper's	1680	- 1 6 5	
Comptroller & Cooper's	12400	10 5 4 1	
Comptroller & Cooper's	405	- 5 5 1	
Comptroller & Cooper's	930	- 12 5	
Comptroller & Cooper's	1830	1 8 10 1	
Comptroller & Cooper's	715	- 3 6 1	
		187,216 208 3 9	

Arack Distillery at 20 B per 226 gallons
 Shipping at 1 R per a bush load = 480 gallons
 All other at 2 B per 100 gallons

Armed Distillery at 20 B for 224 gallons
shipping at 1 B for a boat load = 400 gallons
All other at 2 B for 100 gallons

Andruanese Store	445	5	11
Harbor Office	6200	5	28
Govt. Tel. Store Dept	620	8	3
Police Guards			
Govt. Tel. Office	4650	3	11
Ref: Customs House			
Office	10230	8	5
Govt. Beach Road			
Generals Hospital	105033	27	8 5
Milit. Hospital	59866	49	14 3
Grand Jail	19218	16	3
Bullet Factory	8300	7	14
Medical Stores	45961	38	4 10
Govt. Ammunition	20925	17	7
Medical College	10392	9	2 11
Andruanese Lines	408568	348	7 7
Gun Powder Factory	84275	70	3 8
Ballons	972699	862	12 8

This supply is exclusive of the supply to the garrison

10 Dec 1878

1207 S. C. Plummer Lt.
Asst. Engineer
South Sub. D. Officer

1207 Prof. Thompson Major R. C.
Engineer Engineer

(True copy)

(Signed) S. C. Plummer
Lieut.
Asst. Engineer
Ench. Presidency

(True copy)

Major R. C.
Asst. Engineer, 3rd Class

List showing the names of the buildings near which
the Municipal Main or pipes pass.

Private individuals
Shipping (Private).

Commissary General's Office

Commissariat General

— do — Body Guard

— do — Cattle

Granary, Hospital, Military Guard

— Messant & Non-Command Officers, Comd. Dept

Master Attendants Office & Res.

Stamp Office

— do — Military Guard

B. P. M. Lancers, Beach

Madras Bank, City Guard

Marine Police

Justice Jail

High Court

Camp & Equipage Depot

Body Guard

Collector Sea Customs

Andruanese Store Lancers

Harbor Office

Govt. Telegraph Office

General Hospital

Military Hospital

Medical College

Andruanese Lines

Levatom House Office

(Signed) S. C. Plummer Lt.

Asst. Engineer

(True copy) R. C. Plummer

Major R. C.
Asst. Engineer, 3rd Class

No. 5298.

3RD CIRCLE, SUPERINTENDING ENGINEER'S OFFICE,

Chepauk, 13th Sept 1879.

From

THE SUPERINTENDING ENGINEER,

3RD CIRCLE,

40/99

To

The Chief Engineer,
M. D.

Sir,

Enc 4

In returning the original enclosures received with your Memoandum No 2716 dated 11th August 1879, I have the honor to forward herewith the copy of a statement submitted by the Executive Engineer Presidency Division showing the savings that could be effected in the seven wells establishment by discontinuing the supply of the well water to the Buildings now assessed ^{with} water rate for the Red Hills water by the Municipality. The proposed saving amounts to Rs 381-12-9 from the present cost of establishment Rs 755-4-9. The remaining establishment costing Rs 573-8-0 will be required to supply the seven wells water to the Dock and Shipping which, on an average, consume 105,475 gallons a day.

I have the honor to be
Sir

Your most obedient servant
Henry Vibart Major R.E.
Chief Engineer, 3rd Circle.

66. 2575-17-7-79
 - 1881-15-5-79
 - 1828-19-4-79
 - 1130-20-2-79
 - 5153-17-12-78
 - 6637-20-7-78
 P.O. 2507-81-8-78 with left

P.W.D.

15SEP79

N^o 1879

From

The Sup^{ts} Eng^g 3^d Circle

Statement

One enclosure returned
 to Acet Sen's
 Office - 15/12/79
 No 5290.

Dated 13th } September 79
 Received

Enc^{to}.

Seven Wells Water Works
 Forwards a Copy of Stat^{ts}
 showing the reductions that
 could be effected in
 the Establishment of

Recd. 2.10.79 P.O. 2507-81-8-78
 C.A. 2507 P.O. 2.10.79
 To C.A. 2507

P. W. DEPARTMENT.

Read the following:—

from the Sup^{ts} Eng^g 3^d Circle No 5298 d/13 Sept/79 and
 previous correspondence.

FOR ORDERS.

I think the reductions
 will be carried out.

They are of a kind
 that can be readily
 replaced if the Red Hills
 supply should fail and
 be for relying more
 exclusively on 7 Wells.

These papers refer
 to the proposal for reducing
 the Seven Wells Establish-
 ment, by discontinuing the
 supply of water to all
 buildings now supplied
 with Red Hills water, with
 the exception of the Fort
 and Shipping. The cost
 of the present Establish-
 ment is Rs 955-4-9.

L.M.
 2/9.
 I think the
 reduction will be

and the reduction
proposed No 381-12-9,
which will leave an
Establishment costing
No 573-8-- for the
supply of ^{water} ~~Sun~~ Wells to the
Fort and Shipping.

The cost appears
reasonable.

Attention is however
invited to the remarks
of the Chief Engineer
(Colonel Stodd) in regard
to the unreliability of the
Red Hills tank as a
source of supply.

S
229

transferred to the
water supply
+ the Red Hills
Seven wells are
being treated
again. Also -
The water supply
in Spring
+ side his water
see 70
that the Red Hills
is now from
the

C. H. Bailey Col. S. C.
Supt. Genl. S. W. Dept.

Before considering to give up the Y. wells
rate, I should like to be informed
at what rate the Municipality would
guarantee to supply the Red Hills
water to the Fort.

I think until we ascertain that
it would be premature to give up
the Y. wells some, for once the
property was given to the
Municipality they might become
unreliable.

50/40

W. S. 9

L. W

Please see memo
by H.E. to C & C
and ascertain the
cost at which the
Municipality would
supply the

Att

6/10/79

Recd 2.10.79
C. 2/10/79
2.10.79

No 3162 of 10th Oct: 79
Memo. R.N. 2.
50/52

The President, Madras Municipality
is requested to state for the
information of Government at
what rate the Municipality would
guarantee the supply of Red
Kills Water to the Fort.

(By order)

(H. P.)

Ag. 63: 68.

The President Madras Municipality

(H. P.)

No 3510 of 21 Nov: 79 (10)

P. W. & C. No. 2300

Miraflores Municipality,

PUBLIC WORKS & CONSERVANCY DEPARTMENTS,

Madrid, 30th October, 1879.

From

L. R. BURROWS, Esq.,

President,

Municipal Commission.

To

The Asst. Deputy Chief Engineer
Public Works Department

Sir,

With reference to your memorandum No 3162 of the 10th inst. the Standing Committee have decided that water will be supplied to the Park at the same rate as that at which it is supplied to House owners for domestic purposes viz 4 annas per 1000 gallons.

I have the honor to be

Yours most obed^t serv^t

L. R. Burrows.

President's Ass't Comr

CP

Wm. H. III. Clerk

L.S. 5162-10-10-79
 - 5575-17-7-79
 - 1831-15-6-79
 - 1828-19-4-79
 - 1120-22-3-79
 - 5553-17-12-73
 - 6638-50-9-78
 L.S. 4507-31-8-78

P.W.D.
1870

Civ: 19-11

No 3510 of 21 Nov. 79

Memo

50/44

Letter from the Presd. Adress
 Municipal Commission of 20 Oct. 79
 No 2300

Referred to the S. R. III Council
 for report as to the quantity
 of water now supplied per
 diem to the Fort from
 the Screen. Mch. reservoir.

By order
 W. P.
 a. p. & ch

The S. R. III Council

W. P.

No. 267.

3RD CIRCLE, SUPERINTENDING ENGINEER'S OFFICE,

Chepauk, 1st January 1880.

From

The SUPERINTENDING ENGINEER,

3RD CIRCLE,

To

The Chief Engineer
Public Works Department.

Sir,

Enc 1

In returning the enclosure received with your Memorandum No 3510 dated 21st November 1879, I have the honor to inform you that the quantity of water now supplied per diem to the Fort from the Seven Wells reservoir is about 26,000 Gallons.

I have the honor to be
Sir

Your most obedient servant

Chief Engineer
Major
As Sup Engineer 3rd Circle.

1880.
P.W.D.
192120

No. 267

From
The Sup^d Engr^d &c.

No. 267.

dated 17th } Jan^y 1/80.
Rec^d

Enc-1.

Seven Wells — Inform
that the quantity of water
from the Reservoir of —
now supplied per diem
to the Fort is 2000 Gallons.

P. W. DEPARTMENT.

Read the following:—

Letter from the President, Municipal Commission
No. 2300 of 30 October 1899.

FOR ORDERS.

With reference to A. B.
the Commander-in-Chief's remarks
on the note submitted for orders
on the 24th September 1899.

Colonel R. B.
Secretary to Gov^t P. W. D.

At the rate now given what
would be the cost of supplying
an equal quantity to that
now consumed in the
Fort?

Ans.
1. 11

FOR ORDERS.

Calculated to
 S. S. the C. in C,
 with the result that
 the cost of supplying
 an equal quantity
 of water to that
 now consumed in
 the fort will be
 \$6.68 a day, or
 \$195 a month.

11/11
 12/1

S
 22-1

P. H. D

No. 347 of 30 Jan. 80

507
 119

Further information is
 furnished by the
 Superintendent Engineer
 in his letter dated 13
 Feb. 1879 states that the
 consumption of the Fort and
 the shipping amounts to
 105,475 gallons a day.
 In his letter dated 17 Feb 80
 he states the present consumption
 in the Fort is about 26,000
 gallons. This would
 give about 80,000 gallon

consumption by the shipping - information
 requested as to whether these figures
 are correct, and whether the 26,000 gal

as the daily consumption
by the shipping -
Are these figures correct -
And is the 26,000 gals.
said to be the consumption
in the Fort the normal
consumption when the
ordinary garrison is there,
or has it been reduced
by the recent reduction in
the no of troops quartered
there -

2. Information is
also required as to

No. 347 of 30 Jan'y: 80

50/19

What the whole expense^{50/19}
would be of supplying water
from the ~~new~~ 7 wells.
(a) To the Fort alone
(b) To the Fort and
Shipping -
for I know that the
estimate of \$573 - 8⁰⁰ a
month is apparently for
establishment alone.

3. I should also like
to know whether the
expense of supplying the
shipping with water has

Consumption by the shipping - information
is requested as to whether these figures
are correct, and whether the 26,000 gals.

FOR OR

[illegible]

extracts from provided
 sub. of Military Budget =
 I cannot see any rational
 connection between the
 supply of water to the Hotel
 and that to the Shipping.
 And if the two are in any
 way bound up together
 immediate steps ought to
 be taken to separate
 them.

P.H.R.

No. 347 of 30 June: 80

507
119

Acino

With reference to the letters marginally
from S. E. S. Card } noted, the undersigned has the honor
N^o 5295 a/13-9-77 } to request that further information
do N^o 267 a/17-1-80 } may be furnished on the following
points.

It is observed from the Supg. Engineer's letter N^o 5298 of 13 Sept. 1879, that the average consumption of water by the Fort and shipping amounts to 105,475 gallons a day, and from his letter N^o 267 of 17 January 1880 that the quantity of water supplied per diem to the Fort is about 26,000 gallons. This would give about 80,000 gallons as the daily consumption by the shipping. Information is requested as to whether these figures are correct, and whether the 26,000 gal

stated to be consumed in the Fort
is the ordinary consumption when the
normal garrison is there, or whether it
has been reduced by the recent reduction
in the number of troops quartered there.

It is further requested that information
may also be furnished as to what the
whole expense would be of supplying
water from the Seven Wells

(a) to the Fort alone

(b) to the Fort & shipping

In this connection it is observed that
the Estimate of Rupees 573-8-4 referred
to in the Sd/-g Engineers letter No 5298
of 13 Sept 1879 is apparently for
establishment alone.

An early reply is requested.

(By order)

(Sd/-g) John Murray Esq. Major R.E.

Asst. Quarter Master P.W.D.

The Sd/-g, Secy. Third Circle.

No 597

3rd Circle Superintending Engineer
Chapank 4th February 1880.

From

The Superintending Engineer
3rd Circle,

To

The Chief Engineer
Public Works Department.

Sir,

With reference to your Memorandum
No 347 dated 30th January 1880, I have the
honor to inform you that the ordinary
average daily consumption of water by
the Fort and shipping is about 105,475
gallons, as stated in my No 5298 dated
13th September 1879. At present owing
to the paucity of the Garrison &c in
the Fort about 26,000 gallons are consumed.
In ordinary times, the Fort alone consumes
over 100,000 gallons.

2. The whole expense, per mensem,
of supplying water from the Seven
Wells to the Fort alone will be
Establishment ————— Rs 519-8-0
Contingent expenses for repairs &c. 15-0-0
For Shipping ————— 54-0-0
Total for Fort and Shipping

Rs 588-8-0

I have the honor to be
Sir
Your most obedient servant
J. C. M. M. M. Major &c.

Ag. Sup. Gen. 3^d Circle.

L.A. 1629-2-4-98
 " 1657-1-4-98
 " 1658-17-12-98
 " 1638-10-9-98
 L.O. 1507-31-5-98
 L.S. 1120-28-8-97
 " 1523-17-4-97
 " 1531-15-5-97
 " 2575-17-7-99
 " 2162-10-12-99
 " 3570-21-11-99
 " 247-20-1-98

P.W.D.
NOV 1880

From
 The Superintending Engineer
 33 Circle

No 597

Dated 4th
 Received } February

From Wells water supply
 Reports upon consumption
 of — by the Fort and
 shipping etc.

W. Dept.
 5/2

From the Superintending Engineer
 per 33 Circle No. 597 dated
 4th February 1880.

Submitted for
 the information of
 His Excellency the
 Commander-in-Chief
 with reference to his
 remarks of the 26th
 ultimo and with an
 intimation that although
 the seven wells esta-
 blishment is paid
 entirely by the Military
 Department in the
 first instance, the
 shipping pay each
 for the water supplies

to them, the amount
being realized by
the Military Paymaster.
and paid into
the Treasury.

C. M. Stanley

Colonel R. C.

Secy. of War. Wm. H. Hunt

S.

1860

Jan 2. 86

Ch 630 d/25 July Po.

49/10

It now appears that the
normal consumption of water
in the Fort exceeds 700,000
gallons a day. 49/10

If supplied from the Red
Hills this will come to
Rs 25 daily or Rs 750
a month.

The cost of the 7 wells
at the source is Rs 534
if the value of the water
supplied to the shipping
be recovered.

It seems therefore that

(My notes)

(of P.P.)

aj: s.c.

M. S. E. III Circle

the introduction of the
Red Hills water will result

in a loss and as the

present supply is satisfactory

I should recommend that it

be continued.

The Board of Commissioners
decide that the District is the
best should use the water
as they may make their
receipts -

U. 10/2

If precipitated will supply the minimum
amount of water at the ordinary
price, there is no objection to

No 630 of 25 July P.

4/11

The chance of any
measure being needed
~~and~~ ^{contingency} it should
be provided at some
rate ^{primary} ~~be provided~~ part of
Green Hills water.

U. 10/2
4/11

(My order)
for P.P.
by: sch.

W. S. E. III

No 630 d/15 Feb. Po.

Mem

50/40

Letter from the S. E. III Circle No
597 d/4 Feb. Po.

With reference to the above, the
undersigned has the honor to request
that the S. E. III Circle will be
good enough to state

- (1) the average monthly quantity of
seven hds water supplied to the
shipping store
- (2) the average amount received
in payment for the quantity so
supplied.

(My order)
(of P.P.
aj. S.E.

(of P.P.

M. S. E. III Circle

No. 1205

3RD CIRCLE, SUPERINTENDING ENGINEER'S OFFICE,

Camp Bangalore Chigmal, 8th March 1880.
Despatched 10th — do —

From

THE SUPERINTENDING ENGINEER,

3RD CIRCLE,

50/57

To

The Chief Engineer
Public Works Department.

SIR,

In reply to your Memo No 630 of
25th ultimo, I have the honor to state
that

- (1) the average monthly quantity of
water supplied from the seven
wells to the shipping is 53,833 1/3 gals.
and (2) the average amount realised per
month for this quantity is Rs 107-10-8.

I have the honor to be

Sir

Your most obedient servant

Henry W. S. S. S.
Major R.E.

Asst. Engineer, 3rd Circle.

C. E. Co. 130. 25-2-80.

P.W.D.
111100
No. _____
1880

From

The Superintending Engineer
3^d Circle

No. 1205

Dated 8th }
Despatch 10th } March
Received 1 } 1880

Given note — States the
average monthly quantity of water
supplied from —

C. B. 3. 80.

P. H. Depy

From the Superintending Engineer 3^d Circle.
No. 1205, dated 8th March 1880.

Re-circulated for the
information of His Grace
the Governor and His
Excellency the Commander.
— in — chief with reference
to the latter's note of
the 10th February.

3. It was considered
desirable to ascertain
what was the actual
quantity and cost of the
water supplied to the
shipping as distinguished
from that supplied to

the

the Fort.

3. It now appears that the former quantity is altogether trifling as compared with the latter being only 53,000 gallons per month, or 1,900 gallons per day, against 100,000 gallons, but the cost is Rs 104-10-3 out of Rs 593-8-0.

4. The net cost of supply to the Fort will be Rs 593-8-0 - Rs 104-10-3 or Rs 465-13-4, whereas the cost of the same amount of Red Hills water would be

Rs 450 per month ¹⁶

5. It is therefore obviously more economical to maintain the present system of supply to the Fort.

6. It is observed that the water supplied to the shipping is charged for at the rate of Rs 2 per 1000 gallons, the Municipal charge for the same quantity of Red Hills water being four annas - and the actual cost of ^{raising} drawing the seven wells water three annas only.

4. If the practice of
supplying Leaven water
to the shipping
be abandoned, the cost
to the Govt. will be
increased by the amount
(\$104) now received
from the farmer, as no
appreciable reduction
in establishment can
be made, but the
increased cost (\$573.00)
will still be less than
that of an equal amount
of Red Hills water.

W. M. Ashley Esq. Secy.
Dep. of Agric. P. H. & O.
D.

W. M. Ashley

9/60
The question seems
by these papers to be
narrowed to that of
Govt. Shipping -
Red Hills water has been
always paid to the
Govt. - & Shipping is not
likely to continue to pay
an excessive rate for
water - when they
can obtain it cheaper.

Col Stanley's Memo of 8
March - taken from
list of 7 wells at 573
In Museum to supply
the food - with a full
quantity - and the
expense will not be
open to much rising
on account of fluctuation
in Garrison - with the
demand appears to vary
from 2,000 to 10,000 gallons
daily

2
The cost at Museum office
would be R 750 - 10,000
gallons per day - this is
agreed to be R 177.
R^d Museum on R 2124 - in
excess of cost - but in the
figures given as cost are
only included wages -
of working staff - in pumping
and the Smith & repair bucket.
Nothing is put down for
materials - wood - iron -
lead - solder - & labour

in repairing pipes - in
cleaning wells. or
cleaning & removing
filtering material -
by not cleaning the
filter for a long period
period cost - may have
been kept down. But as
the analysis taken indicate,
with the result of considerable
deterioration in the water -
I believe therefore a
considerable sum must
be added to the bare cost of

labour & that a ⁵⁰/₆₂
sum of £650. a
month would leave
£100. on the whole a gain.
I would tell the Municipality
the facts & that £100
will give them £650 -
allowing the Municipality
to use the main for
supply to the places
subject to the connection

of the practice of

with 7 Wells being maintained
retained - in case of its being
necessary for the purpose of
the Wells supply or for
to have used it.

The 7 Wells remain
sub. property - and as it
adjoins P.M. Works, &c.
it can be well cared for
of that establishment.

By 173

By J. P. D.
D.

173

Water Supply
to Public Build-
ings -

Memorandum
by His Grace
the Governor in
Council to
The Honble
Wm. Ivimey

The Honble
D. F. Lunn
(By order)

Gertrude Hobart
Major
and Sec.

Fort House.
22 Feb. 1879

Before deciding to change
the supply of water for the
Fort I should invite attention
to Colonel Ford's observation
in his late debate on the
"At present", he says, "the
Red Hill Tank cannot be
looked upon as a reliable
source of supply, as was
shown during the recent
drought, and again at the
end of last year when the
Tank received an abundant
supply and was in consequence
for some time in considerable
danger."

Of this view of the case
be the worst one it seems to
me that it would be better

to give up the seven wells
to the service of supply and
if the change would result
in a permanent saving.

This does not however seem to
be probable. - The Sec'y of
P. & S. expresses the opinion
that it is obviously more
"economical" to maintain

"the present system of supply"
- While his Grace the Governor
proposes to offer to the Marine
- a facility what the establish-
- ment at the 7 wells will
cost + a very liberal per-
- centage for contingencies.

On enquiring I find that
the quality of the two waters

Vide Dr. B. de la
Rochelle's

47
is much the same but
that if there is any difference
it is in favor of that
from the seven wells, and
the immensity of the cost
from epidemic disease
during a long course of years
appears to me a strong
argument in favor of letting
well alone - and the
more especially as no more
= tax gain will result by
making over the supply to
the Municipality

The last committee
should be called
to see the present

It is stated that the
buildings, &c, supplied,
not including the Govt.,
should yield a Revenue
of over \$800,000 - but
being Imperial or Permanent,
they pay nothing.

of their own & the Imperial
to their Government. In the
right to be added & perhaps
Shipping - ? Is not the bulk of the
present Imperial charges for
? Is the Established? Can it
be carried & maintain this
particular supply - After the
honouring right to be righting
by discontinuing any line of
existing supply. But would
this? Much of the supply
before it is not the same
is for supply services. I
it is not an add charge
on supply.

? Is the Government
which makes it more com-
to a living record of the
to come

At present it seems
more that there is a
length to increase the
income. But it is not
there a new charge on the
specifically on supply. It is
any increase of supply.

Does fear to that
much hesitation in
the dependence of the
on the Government's
supply. The Government
abundance of them. But
certain will be not

Don't be quite right in my
opinion & cease for supply
to private individuals from
the burning & can provide.
but if it is necessary
to maintain any for the
at J. Wells. I think we should
beim for the most direct
advantage that can be derived
from the subject by the one.

475 2372

Opening the Wells
stopped the Survey &
Prov. would be Rs 900
- the payments to
Municipality for
which Provincial
might be liable -

Water rate was
levied and water
supplied & accordingly
all which there-
upon we comm. took
and a charge of Rs 500

was given such
it would represent
the intent of as
the of Messrs. J.
State works to be
be no loss to Government.

The various resolutions
as regards the supply
of Red Hills water can
be readily addressed
now when we are
introducing it - comparing -
in the town - I

would suggest that
the supply
be taken from the
well at the side of the
Neesah road, rather than from the
existing well - as the latter is
being given to the public
supply - that there be no
interference with the supply of
the C. L. & Co. as the water is
being given to the public supply.

that if he is referred to
of the Commission
of the Commission
1872.

Financial Department.

PROCEEDINGS of the MADRAS GOVERNMENT.

Read the following letter from
of Govt. in the Public Works Department.
dated 21st May 1878. No. 2240 W.

Proposals recently made for the
improvement of the Madras Water
Supply render it necessary that an
examination and analysis should be
made of the water at certain places
in the system with a view to ascer-
tain the sources of any impurity
and contamination. The object in view
will be best attained by analyses
of specimens taken respectively from
the Red Hill Cault, from the Madras
end of the open Supply Channel, and
from one of the drinking fountains,
as at Triplicane.

His Grace the Governor in Council
with the permission of His Excellency
the Commander in Chief directs that
the obtaining of the samples and
this

this analysis be conducted by Surgeon
Major Nicholson, medical charge
Royal Artillery, Saint Thomas' Hospital
without prejudice to his present
duties, who on completion of the
analysis and submission of his
report shall receive such remunera-
tion as shall be determined
by the Government in communication
with the Surgeon General, British
Medical Department

(The Extract)

Sd/ W. Farewell, Col.
Under Secy to Govt. India

Order thereon of 23rd May 1878. No 911.

Communicated to the President, Madras
Municipal Commission and Surgeon
General, Indian Medical Deptt.

(The Extract)

Sd/ S. F. Carmichael
Chief Secretary

50/70

[Handwritten signature]

134

Govt. of 1873

40.

Date

Recd.

—

187. No.

Nos.

2. Memo to H. H. H. H. H.

For copies

With reference to
the annexed notes
by H. H. H. H. H. and
his Grace the Governor
I would venture to
suggest that before
making further
investigation in
this matter the best
professional opinion
be obtained as to
the character of the
Red Hill or Camp
water the 7 wells
water - It may
be that there is
not any much to
choose between the
two but in any
case it would seem

No. 1463.

OFFICE OF SANITARY COMMISSIONER,

Madras, December 3rd 1870.

From

The Sanitary Commissioner

for Madras.

The Under Secretary
to Government
Public Works Department

Sir

Returned Enclosure

With reference to your Memo No. 2702, I
have the honor to point out that the analyses of
waters, concerning which an expression of my opinion
is requested, were made at different times, one in
1878 and the other in 1880 and by different chemists.
I would venture to suggest whether it would not be
advisable to have the Seven Wells water analysed
again by the same chemist, who has more recently
analysed the Red Hills Tank water.

2. The relative practical value of the two waters
for drinking purposes would thus admit of more
valuable comparison.

I have the honor to be
Sir

Your most obedient servant

M. C. J. J.

Sanitary Commissioner for Madras

March 31/1870

L.C. 3617 310. Aug 17/95.
 " 2677 17. Sept.
 " 215 30. Oct.
 L.C. 4677 9. Dec 17/95.
 memo. 2702 32. Dec 17/95.
 " 630 25. Feb.
 " 317 30. Jan.
 " 312 10. Feb 17/96.
 " 2345 17. July 17/96.
 " 1931 15. May.
 " 2635 30. Sept 17/96.
 " 5817 27. Jan.
 " 5652 17. Dec.
 " 1130 28. Feb. 17/97.

Enclosures

Ch. 24. 39. Dec 17/95

Received
 18
 1901

Analyses of Red Wells Water

	1 Water taken from Colliery at the High Level	2 From the 4 top of the main in New Street at the High Level	3 From the main in the road	4 From the main in the road	5 From the main in the road	6 From the main in the road
Total solids	0.202	0.200	0.150	0.190	0.250	0.170
Volatile solids	0.050	0.090	0.030	0.060	0.110	0.040
Sodium chloride	0.06435	0.06435	0.0644	0.0665	0.06727	0.06435
Total hardness	3.45	3.05	3.05	3.085	3.085	3.05
Permanent hardness	2.08	2.08	2.01	2.015	2.05	2.08
Free ammonia	0.40	0.20	0.40	0.40	0.64	0.45
Albumenoid ammonia	0.48	0.40	0.40	0.40	0.40	0.64
Nitric acid	0.90	0.75	0.6	0.9	0.75	0.60

REMARKS.

Deposit in all cases abundant; chiefly vegetable.
 Large infusoria abundant.
 A few bacteria in No 3
 In No 5 a few small Asmatoid worms.
 Careful filtration necessary if used for drinking purposes.

(True copy) J. H. Rogers Esq. 24th March 1880
 J. H. Rogers Esq. 24th March 1880
 Chemical Examiner

Analysis of Seven Wells Water.

			Soothan Cartman, chin -nathambur abund.	
Total solids	...	Grms. per litre		
Volatile solids	...	do.	0.400	
Sodium chloride	...	do.	0.070	
Total hardness	...	Clark's scale	0.0501	
Permanent hardness	...	do.	40.4	
Free ammonia	...	Mgrams. per litre	10.2	
Albumenoid ammonia	...	do.	0.16	
Nitric acid	...	do.	0.44	
	...	do.	0.60	

REMARKS.

A soft water, good in appearance and taste,
and contains little sodium chloride.
Deposits - clay and vegetable debris in which
animal farms. rotifers, daphniae and parames-
abund.

Madras
Nov 27th 1878

(Free Copy) J. J. Rogers, Esq. R. F. F. C. S. Chemical Exam.
Madras March 31/80
and J. H. Rogers 1/50

General Enquirer.

Search

INDEXED
SERIALIZED

ENCLOSURE

RECORDED

FILED

MAILED

SEP 10 1963

100-100000
11/1/63

For Mr. H. H. H. H.

For orders

With reference to the
H's remarks in
marginal note of
21/11 I beg to state
an analysis of the
Red Hill sample and
7 Wells waters res-
pectively under date
26: March last, but
I should myself be
- itate to pronounce
any opinion as to the
relative values in
the paper, and
will therefore be
if permitted to con-
sult the best pro-
- fessional opinion on
Subject

Cir 26.11.80 P.H. 30.11.80

27/11/80 *Elth*

S. W.

40/100

Please refer
now this point to
the person in-
- vited — Surgeon
General? Sanitary
Commissioner?

Perhaps it will
be best to have to
have the file intact
the notes by the
members of the

30/11/80

W. See draft on back of
printing card is the proper
authorities - I would send in paper
and the analysis - *Elth*

Sanitary Comⁿ

Ch. No. 2702 of 1880

The undersigned is directed
to forward to the Sanitary
Commissioners the enclosed
analyses of the Red
Hills and Green Hills
waters, with a request that
they may be forwarded with
an opinion of the Sanitary
Commissioners' opinion as to
the relative ^{practical} value of the
two waters in question for
drinking purposes, as
indicated by these

analyses of

Done
3-12-80

[Signature]

1/12/80

Cor. 25.11.80. 27/11/80

No. 2773 of 9th Decr 80.

Memo:

The Supt. of Works, Presidency,
is requested to arrange with the
Chemical Examiner for a new
analysis of the Green Hills water
to admit of comparison with
the analysis of the Red Hills water
made by Doctor Rogers on the
24th March 1880.

/By Order
of J. P.
Sgt. Ch.

To The Supt. of Works
Presidency. Done
7-12-80

From the Superintendent of Docks,
Presidency, No. 4099, dated 2^d February
1881.

FOR ORDERS.

Ch. No. 2773 8790 Dec.

Memorandum
to the Superintendent of
Docks, Presidency,
from the Superintendent of
Docks, Presidency,
dated 2^d February 1881.
Subject: Analysis of
water from the Red Hills
and the Seven Hills.
The analysis of the water
from the Red Hills, which
was forwarded to the
Public Works Department
on the 1st inst., shows
that the water is of a
quality nearly if not
quite equal to the former.

It appears from the
analysis now forwarded
that the Red Hills
water is superior to
most of that from
the Seven Hills, but
that some of the samples
of the latter are of a
quality nearly if not
quite equal to the former.
2. It is believed that
few or no complaints
have been made to
the quality of the
Seven Hills water.

Analysis of New Well Water dated 24th March 1880

	0201	0202	0203	0204	0205	0206
Water taken from bottom of Right Column	Water taken from bottom of Right Column	Water taken from top of Right Column	Water taken from top of Right Column	Water taken from top of Right Column	Water taken from top of Right Column	Water taken from top of Right Column
Total solids	1.202	0.20	0.16	0.190	0.23	0.17
Volatiles	1.050	0.09	0.05	0.060	0.11	0.04
Sodium chloride	0.06455	0.06455	0.0644	0.0665	0.0677	0.06455
Total hardness	30.5	30.5	30.5	30.85	30.85	30.5
Temporary hardness	20.8	20.8	20.1	20.15	20.15	20.8
Permanent hardness	9.7	9.7	10.4	10.7	10.7	9.7
Live ammonia	0.40	0.1	0.4	0.4	0.64	0.48
Albumenoid ammonia	0.48	0.4	0.4	0.4	0.4	0.64
Nitric acid	0.90	0.75	0.6	0.9	0.75	0.60

Remarks.
 Defecated in all cases Abundant; slightly vegetable.
 Large infusoria abundant.
 A few bacteria in No 3.
 In No 5 a few small Anacystis aeraria.
 Careful filtration necessary if used for drinking purposes.

Washed
 30th Feb 1881

True Copy J. K. Rogers

Chemical analysis

FOR ORDERS.

Wm. W. Anderson
 The Ref. Station

Indicates the water
 my opinion. The water is
 for use for drinking
 purposes. The water is
 of good quality and is
 suitable for drinking
 purposes.

and it does not appear
 that the practical
 superiority of the Red
 Hills water is such
 as to justify an
 alteration in the
 system of supply
 which will produce
 no pecuniary benefit
 to the State and which
 is disapproved by
 His Excellency the Com.
 mandant-in-Chief
 (note note dated 2nd
 April 1880).

W. W. Anderson

15 Feb. 1881

187

Total solids	...	grms. per litre	...	...
Volatile solids	...	do.	do.	...
Sodium chloride	...	do.	do.	...
Total hardness	...	...	Thom's scale	...
Permanent hardness	...	...	do.	...
Free ammonia	...	Mgms. per litre	...	...
Albumenoid ammonia	...	do.	...	...
Nitric acid	...	do.	do.	...

Mean results obtained by the examination of five samples of West wells made in March 1880.

Mean results obtained by the examination of ten samples of debris wells water made in January 1881.

0.190
0.063
0.0652
38.620
38.025
0.42
0.45
0.75

0.603
0.145
0.2006
12.435
98.310
0.176
0.310
10.620

REMARKS.

Madras
Feb 4 1881

J. H. Rogers. M. B. F. R. C. S.
Chemical Examiner

187

From
The Chemical Examiner,
Madras,

Date
Received

To
The

Date

55

Total solids	...	Gms. per litre	...	...	...	...	...	...	...	...
Volatiles	...	do.	...	...	...	...	...	...	...	...
Sodium chloride	...	do.	...	...	...	...	...	...	...	...
Total insolubles	...	...	...	...	...	...	...	...	...	...
Permanent turbidity	...	...	...	...	...	...	...	...	...	...
Free ammonia	...	...	...	...	...	...	...	...	...	...
Alkaloid ammonia	...	...	...	...	...	...	...	...	...	...
Nitric acid	...	...	...	...	...	...	...	...	...	...

REPORTS. No. 1. - Report made for the purpose of determining the quality of the water supplied to the city of London. The water was found to be of good quality, and the supply was found to be sufficient for the requirements of the city. No. 2. - Report made for the purpose of determining the quality of the water supplied to the city of London. The water was found to be of good quality, and the supply was found to be sufficient for the requirements of the city. No. 3. - Report made for the purpose of determining the quality of the water supplied to the city of London. The water was found to be of good quality, and the supply was found to be sufficient for the requirements of the city.

J. H. Rogers

187
From
The Chemical Examiner,
Madras,
No.

Dated
Received

ENCLOSURE

To
The

REFERENCE.

Year

No.

Date

REFERENCE.

Chemical Examiner

1881

From

The Chemical Examiner,

Madras,

No. 183.

Date: 17th Aug 1881

Received

ENCLOSURE.

To

The Superintendent of Works,
Presidency
Madras.

REFERENCE.

Your Letter No. 1381 dated
11th Decr 1880.

SUBJECT.

Has the honor to
supply analyses of
two samples of
water as requested.

J. K. Rogers

Chemist.

No. 1099

MADRAS,
Chennai, 9th Dec 1880

From

THE SUPERINTENDENT OF WORKS,
PRESIDENCY,

To

THE Chief Engineer,
P. W. Department.

Sir,

Enclosures. 3

With reference to your Memorandum
No. 2773 of 9th December 1880, I have the honor
to forward herewith a statement of analysis
of the Arun Wells Water recently made by
the Chemical Examiner. Also a statement
of the analysis of Red Hills Water of
March 1880, and another showing the
mean result of both analyses.

In forwarding the papers, I beg to
remark that the superiority of Red Hills
Water will be at once apparent. It is also
noted that Sample No. 126 of the Arun Wells Water is of better
quality than the other samples of that
Water.

I have the honor to be

Dear Sir,

Your Most Obedt Servant

Frederick Pibart Major &c

Superintendent of Works, &c

1000/81

From

The Superintendent
of Works, Presidency.

No. 499

Dated 9th } February 1881
Recd 10th }

Encls. 3.

Analysis of the Sewerage
Waters and Mud from the
Works made by the Chemical
Examiner.

Howards Statement
of the _____
and another showing the
result of both of them.

1000/81

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the 25th Feb'y/81.

Read the following

- Proc in the Encls. Report (N. No. 5023 of 25th Sept/80)
Letter from District Engrs. (N. No. 4238 of 17th Oct/80)
Presidency
" Ex. Engrs. - 20 - 25/80 (N. No. 5036 of 22nd Dec/80)
" Super Engrs. 3rd class (N. No. 1153 of 6th March/81)
" President's Encl. Comm. (N. No. 566 of 17th April/81)
" Assistant General (N. No. 1013 of 10th May/81)
" President's Encl. Comm. (N. No. 909 of 12th July/81)
" " " " (N. No. 1029 of 5th Aug/81)
" Super Engrs. 3rd class (N. No. 5298 of 13th Sept/81)
" President's Encl. Comm. (N. No. 2000 of 30th Oct/81)
" Super Engrs. 3rd class (N. No. 267 of 17th Jan'y/82)
" " " " (N. No. 597 of 4th Feb'y/82)
" " " " (N. No. 1205 of 8th Dec/81)
" Sanitary Comm. (N. No. 1463 of 7th Dec/81)
" Encls. of Works, Engrs. (N. No. 4099 of 9th Feb'y/82)

After a full con-
sideration of the fore-
going papers, the Govt.
see nothing in the

ascertained quality of the
respective waters of the
Red Hills Park and of
the Seven Wells to induce
them to abandon the
supply to the Fort Wash
Buildings ~~see~~ now not
from the latter. ~~Public~~
~~intention to filter~~
~~before use for drinking~~
~~purpose and seeing that~~
~~bottle derived their supply~~
~~probably from the same~~
~~containing strata,~~
~~the likelihood of the~~
~~causation of bacteria~~
~~in the water~~
~~intervals of new changes.~~

2. Attention should be
paid to the Seven Wells
filtering apparatus

and also to the actual
surroundings of the
wells. The exceptional
results of the analysis
of No. 9 well water
indicates some removable
source of impurity.

3. Seven wells water
^{however}
should not be supplied
to private parties to the
detriment of municipal
income.

The Supr. of Parks Recd.
" July: Departe
" July: Departe
9-3-87

66-38.

GOVT. OF MISSISSIPPI
PUBLIC WORKS.

To

For

For

For

For

U. S. 2549 day 181. No 5070

Dec 7 1877

Supply of water to
moulding in Foster's

Leaving that there is
no thing in the case
The city of the waters
of the Red Hills, and
of seven wells but and
the the — from the
latter