MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

Irrigation Branch.

G.O. No. 415 Irrigation Press
Mis.

Dated 31st May 1876.

Not to be folded or roughly handled

No. 415 I., 13TH MAY 1896.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

READ—the following paper:—

No. 84 I.

*Note by the Chief Engineer for Irrigation.*

The question of the improvement of the sanitary condition of the Cooum river was dealt with in the papers published with G.O. No. 1651 M., dated 7th November 1894, and the plans and estimates for the canal from the north end of the harbour into the river, which was advocated by the late Chief Engineer, Colonel Pennycuick, were the outcome of the orders conveyed in paragraph 11 of the Government Order referred to above.

2. After considerable discussion, these estimates were sanctioned for execution in G.O. No. $\frac{1084}{A-}$ I., dated 14th December 1895. These estimates were passed through the office of the Chief Engineer, General, Roads and Buildings Branch, but when they were transferred to the Irrigation Branch under the orders of His Excellency Lord Wenlock, I had occasion to draw attention to the illegality of the procedure in sanctioning the execution which had been adopted, similar views having been expressed almost at the same time by the Examiner, Public Works Accounts, and confirmed on a reference to the Accountant-General, Public Works Department, by the latter officer himself.

*Vide* G.O. No. 93 I., dated 28th January 1896.

*Vide* office-note from Examiner, P.W. Accts., No. 949 D./A., dated 1st April 1896.

3. It was necessary, therefore, to stop all further action in the execution of the work by G.O. No. 190 I., dated 21st February 1896, pending the receipt of the plans and estimates for the harbour entrance of the canal, which were being prepared by the Engineer to the Harbour Trust Board. These estimates were dealt with in G.O. No. 119, Marine, dated 26th February 1896, and were passed on to the Irrigation Branch for scrutiny.

4. I am in a measure glad of the delay that has occurred in finally disposing of this subject, as it enables me to bring forward my proposal already made in my note No. 29 E.W., embodied in G.O. No. 1958 W., dated 7th August 1894. I therein suggested that a recoupment of the Cooum could be maintained from Ennore, and re-urged this idea in my office-note No. 256, dated 3rd October 1894.

5. In a note drawn up by Lieutenant-Colonel Smart for the information of the Honourable Mr. H. W. Bliss, he brings forward a proposal for a canal from the south end of the harbour into the Cooum near the General Hospital and incidentally refers to an auxiliary indraught from Ennore. I am of opinion, however, that if a sufficiently wide entry be given to the tide from Ennore bar into the canal just below Ennore lock, and if the reach of the canal from that point down to the Madras basin be widened, nearly all the advantages claimed by a canal direct from the harbour could be obtained at an expenditure of about Rs. 30,000 as against (in the case of the canal from the north end of the harbour) that of over ten lakhs of rupees.

6. The scouring sluices proposed to be constructed at Napier's bridge may be built to dispose of water in excess of M.S.L., in order that a fresh supply might be admitted from Ennore to bring the river up again to O.H.T.L. As for the scouring action established by such sluices on the bed of the river, it will probably not be felt to

more than a couple of hundred yards above the same. It would be inadvisable, in any case, to lower the water-level in the river to the lowest possible. This would mean, not only stoppage of navigation until the water-level rose again, but would cause the river margins and shoals of filth and sewage to be exposed to the festering action of a tropical sun.

7. I would suggest, therefore, that the question of a canal from the harbour be shelved and the simple expedient proposed in substitution thereof be adopted, viz., a sufficiently wide inlet from the Ennore backwater into the Buckingham canal, and this improvement of the latter down to the Madras basin. For this purpose I would provide a masonry inlet 100 feet in length fitted with screw shutters with its crest fixed at O.L.T.L. These shutters would be worked twice a day by the Ennore lock establishment for the admission of fresh water from the backwater.

8. To show what an appreciable effect even the present Ennore lock, which is only 15 feet wide, has upon the canal inside and Cooum river, I may state that since the closure of the Napier's bridge bar on the 25th February the water level in the canal and river rose 0·90 foot by the 1st March. With an entry 100 feet in width, the results, I submit, would be proportionately intensified. I would therefore ask the Government before committing itself to an expenditure involving ten lakhs at the least estimate, to try the effect of carrying out the proposals I have made involving only one-thirtieth of that cost.

9. A sketch-map showing my proposals is appended for reference.

MADRAS, 9th April 1896. (Signed) R. R. E. DRAKE-BROCKMAN, Col., R.E., Chief Engineer for Irrigation.

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ORDER—No. 415 I., dated 13th May 1896.

The Chief Engineer for Irrigation will work out the scheme in detail in connection with the reconstruction of the Napier bridge.

(True Extract.)

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

To the Chief Engineer for Irrigation.
" Superintending Engineer, II Circle, } with tracing.
" Executive Engineer, Buckingham Canal division, }
" Examiner, Public Works Accounts.
" Revenue Department.

Exd. T. K. Narayana Aiyangar.
Spare Copies

IRRIGATION.

Govt. of {1896} Madras.

PUBLIC WORKS.

*Dated May, 13th.*

*Read.* *Encl.*

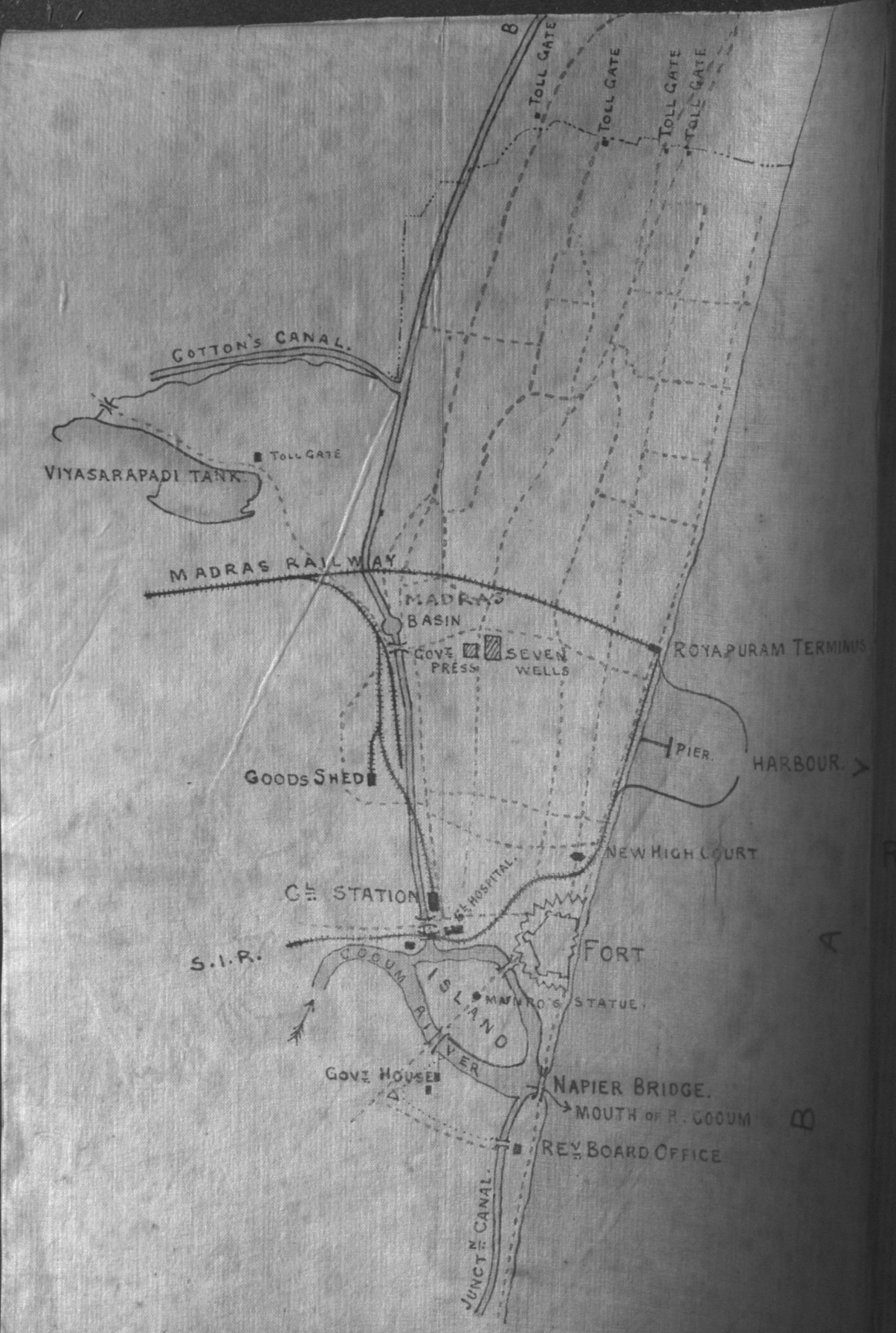
**G.O. No. 415 I., 13th May 1896.**

**MAY.**

## Sanitary Condition of the Cooum

The Chief Engineer for Irrigation requested to work out his scheme for the improvement of the — in detail in connection with the reconstruction of the Napier bridge.


BACKWATER.
N. FLOOD GATE.
ENNORE BAR
LOCK
PROPOSED INLET
ENNORE
ENNORE
BUCKINGHAM CANAL.
TIRUVOTTIYUR HIGH ROAD.
TIRUVOTTIYR.
BENGAL




OFFICE OF CHIEF ENGINEER FOR IRRIGATION
CHEPAUK, 9TH APRIL 1896

B

OF

# SKETCH MAP

To Accompany Note By Chief Engineer For Irrigation
No. 84. I. Dated 9th April 1896
Regarding Improvement of Sanitary Condition.
Of The

# COOUM RIVER

In The

# TOWN OF MADRAS.

Scale.

CHAIN. 0 5 1 2 3 4 5 6 FURS. 1 MILE.

Ronaldshaw
Lt Col R.E.
Chief Engineer for Irrigation

Copied for the Supdg Engineer Dec Circle
No 3210 Karachi 18th Dec 1896

With reference to your endorsement
No 3210 C of 23rd instant on letter
No 3210 C (dated 15th instant) of 23rd idem
from the Chief Engineer for Irrigation
I have the honor to say that on
occasion the Coronation Jean will be
opened about twice a year - Vizt
to let out Kadir drainage in October
and to open or strengthen or Borrow
The Cost of such opening will be
about Rs 200/-

2. It will never be necessary
to artificially close the Jean once
Once a year (in the rare year
when it runs later than 1st January
On an average this may occur
about once in 3 or 4 years but it will
altogether on the lateness of the N.E.
monsoon floods. On any year, as
as 1895, when Lake land flood
occurs at the very end of Dec
the Jean would of left to itself, run
some time. The cost of such artificial
closing varies with the extent
which the Jean is open but on an
average may be put down at
Rs 150.

3. In addition to the permanent
Cont

of French workmen and is a suitable
tunnel to cut the band.

(b) In order to prevent subsequent
(c) to flush the pipes thoroughly
the Lemming head at low tide
having enough to create a good
flow along the pipes bed.

No. 2088C
11.4.96

For onwarded to the
Chief Engineer for Irrigation with
reference to Memo No. H/3688
of 23.3.96

Mr Battersby

Major R
Executive Engr 1st Class

FOR IRRIGATION
13 APR 96
No 1983

No: 84

Note by the Chief Engineer for Irrigation.

The question of the improvement of the Sanitary Condi-tion of the Cooum River was dealt with in the papers publish-ed with G.O.dated 7th November 1894, No:1681 M.Local and Muni-cipal, and the plans and estimates for the Canal from the --- North End of the Harbour into the river which was advocated - by the late Chief Engineer Col:Pennycuick were the outcome of the orders conveyed in para 11 of the G.O.referred to above.

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Cooum near the General Hospital and incidentally refers to
an auxiliary indraught from Ennore. I am of opinion,however,
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Ennore Bar into the Canal just below Ennore Lock,and if the
reach of the canal from that point down to the Madras Basin
be widened nearly all the advantages claimed by a canal direct
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North end of the Harbour) that of over 10 lakhs of rupees.

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Ennore to bring the river up again to O.H.T.L. As for the
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hundred yards above the same. It would be inadvisable in any
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For this purpose I would provide a masonry inlet 100' in length
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These shutters would be worked twice a day by the Ennore Lock
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before committing itself to an expenditure involving 10 lakhs
at the least estimate,to try the effect of carrying out the
proposals I have made involving only 1/30th of that cost.

9. A sketch map showing my proposals is appended for reference.

Madras,9th ~~March~~ April 1896.

Brudenell Woodman
Colonel RE
Chief Engineer for Irrigation.

P.W.C. No 2426

No 3094 - 4/12 - 10-94

" 1758 W - 7-8-95

" 9853 - 10-12-95

" 119 - 26-2-96

" 1903 - 21-2-96

" 1084 - 9-4-12-95

" 1651 W - 7-11-95 L & Q.

" 723 - 28-1-96

File taken by M.C.D. 13.5.96

Public Works Department,

Irrigation Branch.

15

Read the following :—

Note by the Chief Engineer for Irrigation, No: 84 I dated 9th April 1896.

FOR ORDERS.

Recd 11/4/96

D.E.I.

Please issue orders at once to M.C. D^n Off. or to Mr Bond if he is more attainable to draw up the designs for the intake proposed with the 10' vents & 10' shutters Crest level at O.L.T. & shutters up to H.S.T.L. The tops of vents will be flush with tops of shutters & will be high enough to stand H.F.L. The

I see
I think the Divn the scheme in Council. Col. Dicks Bombay long pamphlet & others
9/4
23.04
Pro- Library discussion in Col. Thackeray's the scheme in the Pub. prints, may I, that it should furnish any comments to the Secy Council of the Chief Engineer Bhatgaon and the C.E.I. should not?
DM
17.5.96

JR 6/5/96

The Chief Engineer will be invited to work out the scheme in detail, in connection with the re-construction of the Nasik Bridge.
E.C.H 8.5.96

widening of this Canal
downwards to the Basin
may be extinguished altho'
it will probably not be
required. At the
same time the Naper
Bridge planes must be
overhauled & provided
with Sluices Shutters.
The estimates should be
pushed on as rapidly as
possible, as Govt are
most anxious to get
the work in hand, &
funds can be applied
for upon sanction for
starting the work.
In the meantime the
present Canal must be
the inlet Sluice will
be placed at the most
favorable point on the
Birchworks may by
at once
Excavating & a Canal
being dug Built &
Vessels admitted
over it to a Temp



Element the present
Supply in the Comm

Rivers
8/5/80
E.J.

FOR ORDERS.

4153

PUBLIC WORKS DEPARTMENT,
IRRIGATION BRANCH.

# PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the

READ the following

Letter from Col R W Grant R.E Supg Engineer on special duty. H.Q. No 702 dated 9 March 1896.

Noted by the Chief Engineer for Irrign (H.Q. No 86-I dated 9 April 1896).

The Chief Engineer for Irrigation will work out the scheme in detail in connection with the reconstruction of the Kaveri bridge.

To The Chief Engineer for Irrigation.
" Supg Engineer, Second Circle.
" Executive Engineer, Buckingham Canal Divn.
" Examiner, P.W. Accounts.
" Revenue Dept.

Print very carefully

HS
DJ
12/5

September

Read this at
once to the Secretary, Panama
Canal Dome, by bicycle
after some recent
the original 5 M. S. D.
Rec
12/5

F. I. Form No. 1—1,000—27-11-26.

3626

Govt. of Madras.

PUBLIC WORKS.

Provision Committee

G.O. 13/5 of 1876 No. 415.?

Sanitary Condition of
the Coast.

=

Re Chief Engineer's Report
requesting orders on his
scheme for the improvement
& the — in detail in Con-
nection with the reconstruction
of the Napier bridge.

=

1/5

P/V 1st

N/C 1st

2/13/5

1/5

Under the Integrated Horticultural Development Programme, good quality fruit saplings are also distributed for forming orchards, at 50 per cent subsidy to the small and marginal farmers. Technical advice on the maintenance of the orchards in a better way, is offered.

Integrated Tribal Development Programme:

This scheme is implemented in the Pachamalai hill area. One Horticultural Officer and one Field Officer, - with headquarters at Melsengattuppatti, are incharge of this scheme under which Tribal farmers are selected and offered farms in one acre land to pave way for their perennial income. Under the scheme, inputs are supplied through LAMP Society. Fruit saplings, pesticides and agricultural implements worth Rs.1000/- are distributed to the selected farmers. Facilities to farmers to visit other Government Horticultural farms, Research stations under the control of Agricultural University, etc. are made.

To improve the production of vegetables, Government have planned to supply vegetable minikit containing high yielding variety. It helps those who grow various kinds of spices to produce improved varieties of spices. Schemes such as Demonstration-Cum-Seed Multiplication Plot, distribution of sprayers, Nutritional Garden in rural areas, fruit development, etc. are implemented.