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MADRAS RECORD OFFICE

Government of Madras

Public Works

DEPARTMENT

G.O. No.	42	(N)	Press
B.P. No.			Mis.
Dated	7-1-		1876.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
7th January 1876.*

Read the following:—

No. 86.

MEMORANDUM.

In the matter of the mal-odour referred to in the note from Surgeon-General Balfour, the Chief Engineer has satisfied himself that it does not arise from the water enclosed between the dams solely, if at all. It arises from the accumulation of filthy scum blown up Cochrane's Canal by the northerly winds of the season; but is greatly augmented, the Chief Engineer has reason to believe, by deposits of the contents of the railway station latrines alongside in the canal.

2. At any rate the present state of affairs had better be looked upon as permanent, and arrangements made by the Municipality to meet its results as well as possible. Not only must communication between the Cooum and canal be stopped while the additions to the hospital bridge are in progress; but inasmuch as a dam at its site has the effect of retaining the Cooum water at a higher level when the bar is closed, and of confining to the canal a nuisance which would otherwise have spread further south, Major-General Walker is of opinion that it should always be constructed when the bar closes. Temporary dams may do for the present, but when the Northern and Southern Canals are connected they must be superseded by a single lock-gate.

3. The effect of flushing the canal by letting off some of the Cooum water into it from time to time though beneficial for the moment, is so temporary, and the desirability of keeping up the Cooum level is so urgent, that the Chief Engineer deprecates further resort to that expedient. The Municipality must first do their best to intercept foul matter from being thrown into the canal by removing it otherwise, and then see what they can do to mitigate the effects of pollution of the canal water by underground sewage.

ST. THOME,
3rd January 1876.

(Signed) G. W. WALKER, Major-General, R.E.,
Chief Engineer, Dept. Public Works.

Memorandum by the President in Council.

No. 86-A.

ORDER THEREON, 7th January 1876, No. 43.

CIVIL WORKS, No. 4.

THE Chief Engineer's memorandum will be communicated to the President of the Madras Municipality with whom the Consulting Engineer for Railways will be instructed to co-operate in obviating any preventable nuisances within the railway premises along the canal banks that may exist with or without the knowledge of the railway authorities; and report will be made in due course of the measures found necessary and effective.

2. Pending assumption of charge of the Cooum conservancy by the Municipality, the District Engineer of the Presidency will take steps to have the banks of the Cooum kept clear of decaying filth, and to remove all accumulation of filth from the mouths of the large drains opening into it. He will also adopt such measures as may be practicable to keep open the mouths of the creeks flowing from Triplicane and Mylapoor to the sea, so as, if possible, to admit of tidal action on their beds, occasionally, if not permanently.

Proceedings of the Madras Government, Public Works Department,
7th January 1876.

3. The Chief Engineer will report on the cost of injecting sea-water into the Cooum basin to an extent sufficient to counteract evaporation and maintain its water at a high level.

(True Extract.)

(Signed) G. W. WALKER, Major-General, R.E.,
Secretary to Government.

To the President of the Madras Municipality.
" Consulting Engineer for Railways.
" District Engineer, Presidency.
" Financial Department.
" Chief Engineer, Public Works Department.

Received

*82/110 D-7
7th Jan 1876*

*In the matter of the mal-
odor referred to in the note
from Surgeon General Hal-
ford, the Chief Engineer
has satisfied himself
that it does not arise
from the water involved
between the drains solely,
if at all - It arises
from the accumulation
of filthy sewage blown
up by the winds of
the season; but is greatly
augmented, the Chief
Engineer has reason to
believe, by deposits of
the contents of the soil.*

Wing Station Lateral
along side, in the Canal.

At any rate the present
state of affairs should bet-
ter be looked upon as
permanent, & arrange-
ments made by the mu-
nicipality to meet its re-
sults as well as possible.
Not only must commu-
nication between the Co-
lumbus and Canal be stop-
ped while the additions to
the Hospital Bridge are in
progress; but inasmuch
as a dam at its site has
the effect of retaining the
Canal water at a higher
level, when the Harb is

closed, much of confining
to the Canal is unnecessary
which ~~has~~ ^{would otherwise} ~~be~~ ^{have} to spread further
south, Major General
Wheeler is of opinion that
it should always be con-
structed when the Harb
closes. Improving Harb
works for the present;
but when the Northern
and Southern Canals
are connected, they must
be superseceded by a sin-
gle Lock Gate.

The effect of flushing
the Canal by letting off
some of the Canal water
into it from time to time,

No 86.

Though benevolent for ^{the} moment, ~~but~~ ^{is} ~~temporary~~
 to temporary, ~~affairs~~
 and the desirability
 of keeping up the canal
 level is so urgent, that
 the Chief Engineer desires
 to enter further resort to
 that expedient - The Municipality
 must first do their best
 to intercept foul matter
 from being thrown into
 the canal, by removing
 it otherwise; and then
 see what they can do
 to mitigate the effects
 of pollution of the canal
 water by receiving and
 sewage -

No 86.

Wm. M. McKim, Mayor
 Chief Eng. D. P. W.

Thos. - 3.1.76.

Wm. M. McKim
 Mayor
 D. P. W.

Wm. H. H. H.



The Coom and its state is well described
in Mr. Clarke's report (Page 26)

"It is moreover desirable for many reasons that fresh supplies of sea water should enter with the daily tidal current. the presence of a stagnant lagoon

of sea water closely adjacent to the
"most populous part of a large city"
"is most undesirable, but when it is
"made to receive the sewage of the popu-
"lation for weeks and months together
"as at present, it becomes a source of
"nuisance and danger to health."

But Mr. Clark in this, and in his
suggestions, has assumed the Bar to be
closed and the Coorn a stagnant lagoon
^{only} from April to October. (Page 28) and
has described the remedies to be applied
~~under such circumstances~~ —
but this season the Coorn has been
closed from April 1875, and will, so far
as the probabilities of the Season are known
so remain until October, or November 1876
18 months instead of 6!

The Season appears to be one in which
Water fall is short Every where, and sick-
ness therefore probable, remedial means
more urgent —

The Coorn, if action be not at once taken
will in a few days become what is des-
cribed in Mr. Clark's report — (page 5)
a Tank receiving about one half of the
"fluid filth of the Town. Organic Matter"
thus becomes mixed with brackish water
and produces the inevitable result, an
offensive smell, and a more or less mal-
arious atmosphere in its vicinity —
Moreover the level of the water in this
shallow pool falls gradually to about low
water level of the sea, and a large surface
of seething mud highly charged with
decomposing filth, exposed to the action
of the sun — with this difference, that
the bed will have been uncleaned by
flood, or change of water for 3 times
the ~~usual~~ period —

It is thought that the following
Suggestions may much lessen the
nuisance

1st To maintain the Coom at a fixed minimum level say of 30 inches, by maintaining a dam or lock gate at the Hospital Bridge, and by throwing in artificially sufficient fresh sea-water

2nd To prohibit the throwing of any offensive matter into the Coom or the Cochrane Canal.

3rd To keep the Banks carefully cleaned from all decaying matter, and ^{to remove} any accumulation of filth from the mouths of the large drains.

None of these measures call for any outlay beyond a small amount of labour except the supply of sea-water.

From Mr. Clarke's report it would appear that the area of the Coom basin is such that one inch of depth contains about 550,000 cub. feet. The difference of level would seem to be only 3 or 4 feet, therefore the lifting of the necessary amount to

2 131

supply. Evaporation and waste need not apparently be ~~a~~ a very costly measure, and it is suggested that it be referred to the Chief Engineer to report how, and at what cost this measure could be carried out as a temporary measure.

There are two other offensive and dangerous nuisances existing on the Beach road, viz. the outlets of the creeks leaving from Triplicane & Mylapore - It is suggested that as a temporary alleviation the nuisance may be much abated by confining the actual sewage in these creeks to a narrow channel and keeping the mouths open to the Sea so as to allow the tidal water to flow up, and cleanse the channel, and surrounding low ground each tide

probably a small amount of
labour would suffice to effect this, as
the flow and return of the tidal
water would itself much assist, and
the effect might be readily tested at
one of the outfalls referred to -

No 43. ^{Small} Public Works, kept
Proceedings of the Madras Government
under date the 7 Jan 6.

Read the following -
Chief Engineer's Memorandum (H. dt 3 January 1876)
Memorandum by the President in Council.

The Chief Engineer's
Memorandum will be com-
municated to the President
of the Madras Municipality
with whom the Consulting
Engineer for Railways will
be instructed to cooperate
in abating any prevent-
able nuisances within the
Railway premises along the
canal banks that may
exist with or without the
knowledge of the Railway
Authorities. And report will
be made in due course of

the measures found necessary and effective.

2. Pending assumption of charge of the Coorn Cinewancy by the Municipality the District Engineer of the Presidency will take steps to have the banks of the Coorn kept clear of decaying filth, and to remove all accumulation of filth from the mouths of the large drains opening into it. He will also adopt such measures as may be practicable to keep open the mouths of the creeks flowing from Imphieane and Inyapoor to the sea, so as, if possible to admit of tidal action on their

beds, occasionally, if not permanently. 191

3. The Chief Engineer will report on the cost of infecting sea water into the Coorn Basin to an extent sufficient to counteract evaporation, and maintain its water at a high level.

L.M.R.

President, Municipal
C. Sup. for Ry.
Dist. Eng. Presidency
Chief Eng. Coorn
Chief Eng. P.S.D.

X^o Atty.

22-13-1-76

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2-1-1-76

Gobt. of 1876 Madras.
PUBLIC WORKS.

To *President of the
Madras Municipality*

Dated

Issued

Recd.

En.

G. O. 45 Jan 7 1876, No. 43

Nos. 85 - 86

Order of the Government
Issuing instructions
for the _____