

[L. & M.]
[D. 100-8-8-00.]

Local & Muni. (1895) Department.

MISCELLANEOUS.

G.O., No. 2013/n

DATED 2nd December 1895.

[Despatch Abstract.]

Under-drainage of Black Town Sewage Farm.

Recording, with remark, letter from the Sanitary Commissioner for Madras regarding the-----.

BACK PAPERS.

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

FURTHER PAPERS.

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

[7]

INDEXED.

Miscellaneous.

LOCAL AND MUNICIPAL DEPT.

G.O., DATED 2-12-95.

No. 2013/M.

When given for copying.

[Despatch Abstract.]

Under drainage of Black
Town Sewage farm

Recording with remark
letter from the Sanitary
Commr. for Madras regarding

READ AGAIN ORDER OF GOVERNMENT, DATED
1895, No. 189, MISCELLANEOUS.

BACK PAPER, No.

OF 189

FURTHER PAPER, No.

OF 189

ENCLOSURES.

CURRENT No.

STATEMENT WITH DITTO.

ORDER OF GOVERNMENT

STATEMENT WITH DITTO.

PAPERS NOT FILED UP, BEING MEANT FOR DESPATCH
IN ORIGINAL (not paged).

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Copied by

No. 1952
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OFFICE OF SANITARY COMMISSIONER,
Camp Palamcottah 31. Oct. 1895.
Port St. George.

Depo 5. 11. 95

From

SURGEON LIEUT.-COL. W. G. KING, M.B., C.M., D.P.H.,

SANITARY COMMISSIONER FOR MADRAS,

To

THE

Chief Secretary

to Government

Local & Municipal Department

Enclosure.

SIR,

With reference to G.O. dated 23rd Sep.
-timber 1895, N^o 1541 in this, Local and Muni-
-cipal, I have the honor to state that while,
under present circumstances, I would
not wish to ask Government to re-
-consider its Order, I think that should
an extension of the sewage farm at
Black Town be effected to meet the re-
-quirements of greater amount of sew-
-age brought there by abolishing the
-various farms in the town, the
subject will again be considered.

2. It is true, as suggested by the Pre-
-sident, Municipal Commission, I did
not advise that under-drainage should
be carried out at the Black Town
farm, nor did I make any sugges-
-tion with regard to it, because my
indictment was confined to the faulty
sanitary principles adopted by the
Municipality.

Municipality in regard to sewage farming within inhabited areas. But, I consider the principle which Government laid down in the Order under reference with regard to the Black Town farm, correctly represented the sanitary teaching of the day. It has been urged that it would be difficult to under-drain the farm on account of its low level with respect to the sea. But, I believe this statement does not apply to a very large proportion of the total land. In any case, it would certainly have been possible to have carried out the same plan as advised in connection with the smaller farms, namely, that sewage filtration should be pursued which is but a modification of the method named.

3. The President of the Municipality has sought to exhibit an analogy between my statements concerning the subsoil of inhabited areas, and dumping of rubbish in the position advised near the sea. These matters present no points of similarity for discussion, where there would, however, be an analogy would be the passing of storm water over the mass towards

the sea during rain-fall, as during this time it would acquire much of the character of sewage. The extent to which this might occur would, however, irrespective of the question as to position, be remedied in great part by a simple device (as to which I need not here say anything) and would, moreover, be in comparison with the sewage farm question a temporary, as compared with a constant matter.

4. The difficulty in sewage farming in the tropics is the safe disposal of sewage during the period the cultivation of grass does not require it, owing to soakage of the ground by rain - a matter that has been absolutely ignored by the Madras Municipality.

5. Instead of having to deal with fitful showers aggregating, say, 30 inches delivered throughout the year - as in England, the cultivator in Madras has to dispose of 52 inches delivered in 95 days - practically not a drop of which he requires. In Europe, the difficulty is met by under-draining special plots of land, or by using

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5. Instead of having to deal with fitful showers aggregating, say, 30 inches delivered throughout the year - as in England, the cultivator in Madras has to dispose of 52 inches delivered in 95 days - practically not a drop of which he requires. In Europe, the difficulty is met by under-draining special plots of land, or by using sewage

sewage filters. In Madras, it has been met by recklessly launching the crude and diluted sewage ^{by allowing it} from the town into the canal, into the sea, or ^{to} soak in the land adjoining the farms for days in succession. Hence, financial profit and good pass, but evil sanitary results.

6. Whilst, therefore, it will be a distinct advance to arrange that this reckless disposal of sewage shall no longer occur in inhabited areas, I think it undesirable that the following assertion of the President should pass unnoticed: "Further, it would seem unnecessary to filter an effluent which is to be discharged into the sea." If by "effluent" is meant sewage which has passed through, or over, land I quite agree with the President, but what has to be dealt with is not the discharge of an effluent but of crude sewage, for hours and days after rainfall has soaked the ground, and rendered it unfit to absorb sewage.

7. Recent researches show that when sewage is discharged on a falling

tide into the sea, the physical characteristics as recognized by the lighter sewage floating above the denser sea water is discernible "for an hour and a half after the sewage is discharged, and at a distance from the outlet not exceeding 2 miles." On this coast, for $4\frac{1}{2}$ months of the year, a current $3\frac{1}{2}$ miles an hour proceeds from the North to the South parallel with the shore. Therefore if sewage be discharged into the sea at the Black Town farm, in less than one hour it should be possible for it to arrive opposite the Madras Harbour. On this account, Major Tulloch advised the permanent sewage outfall to be 3 miles north of the Rayapuram Railway station. The sewage farm is within this distance. If the new Harbour Boat Canal be made, there is no reason why the sewage should not then form part of the total sea water to be employed for the cleansing of the Coomur. The return, even in a highly diluted form, of sewage to the Coomur could not be said to aid the object of cleansing held in view. But,

Major Tullock's fears were simply as to nuisance. Bacteriology of the present day has however shown stronger reasons for care as to disposal of untreated sewage in sea-water. Immersion in sea water does not kill either typhoid or cholera bacilli - the latter have been found to survive in sea water for several days. Imperfectly cooked or cleaned fish, and especially molluscs eaten raw, have been found to be media for conveyance of cholera and typhoid germs, when derived from sea into which sewage has been discharged. A fishers' village is close to the sewage farm, and naturally the full length of the shore between the farm and the town is also used for fishing.

8. As crude sewage is discharged into the sea from the farm every time the cultivators feel themselves likely to be inconvenienced thereby, as I have myself repeatedly witnessed, in my opinion, arrangements should be made to filter the sewage before

discharge on such occasions, either by under-draining a special area of ground, or by means of a correctly formed sewage filter. Neither one nor the other suggestion can be regarded as otherwise than perfectly simple and inexpensive expedients. Recent experiments by the London County Council show that filters of coke - obtainable in Madras, or it could be imported from Calcutta - can dispose of 1,000,000 gallons of crude sewage daily per acre; ordinary gravel and sand filters will deal with 50,000 gallons ^{per acre} daily.

I have the honor to be
Sir

Your most obedt Servt
W. H. Young

Supr. Sanit. Bd.
Sanitary Commission Madras

Local
3461 M

L & Municipal DEPARTMENT.

From
J. G. King
SURGEON LIEUT.-COL. J. A. LAING,
SANITARY COMMISSIONER FOR MADRAS,

To
THE Chief Secretary
to Government
Local Municipal

5 NOV 1895
1952
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Dated 31st Oct
Despatched 5th Nov
Received
1895.

ENCLOSURES.

Subject.

Submitting his (S. C.) remarks
on G.O. No. 1541 in Iris dated
23. 9. 95 regarding the under-
drainage of Black Town Sewage
farm.

1541 in 23-9-95
1177 in 24-7-95
818 in 10-5-95
1769 in 19-11-95

For orders

H.M.
Please see notes under n. 2. ho 2523 M.
in G.O. No. 1541 M.
Mr. King now says that the Black
Town Sewage farm should be underdrained,
but that it need not be done until
the smaller sewage farms have been
abolished, which will have the
effect of increasing the sewage treated
at the Black Town farm.
This may be recorded pending the
introduction of the improvement of Madras
drainage 2 (please see para 2 of S.O. 818 M.)
10.5.95
W.D.
25/11/95

Mr. King cannot leave things alone.
He acknowledges, I take it, that
there is no necessity (even according
to him) to filter or underdrain at
the B.T. sewage farm until
the quantity of sewage used
there is materially increased
by the abolition of the smaller
farms at present existing
within their limits. When
the acknowledged Sanitary
improvements are effected, still
he time enough to think
about the treatment of the
B.T. farms
27/11/95

The next gene-
ration may
see to this

N.
Order No. 2013 in 2-12-95
Recorded, pending the introduction
of the scheme for the improvement of
the drainage of Madras.
(from orders)
W.D.
29/11/95

(For orders)

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189.

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

CURRENT No.

ENCLOSURES TO C. No.

ORDER OF GOVERNMENT

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