

No. 187. Read the following Proceedings of the Board of Revenue, dated 3rd October 1872, No. 1,958:—

Read the following papers:—

Letter from Colonel A. RITHERDON, Officiating President, Municipal Commission, Madras, to the Secretary to Government, Department Public Works, dated 19th August 1872, No. 190.

I HAVE the honour to request that you would be so good as to lay the following before His Excellency the Governor in Council.

2. It has been reported to me by the Executive Engineer of the Municipality, that the water in the Delivery Channel, on the 8th and 9th instant, was turbid, by earthy matter held in suspension; that he was obliged to cut off the connection of the channel with the pipes; on both these dates, so as to prevent an undue settlement of sediment in the pipes; and the public who usually drew their supply from the Municipal Fountains were subject to very great inconvenience in consequence.

3. On Mr. Lee proceeding to the Red Hills, he discovered that the cause was owing to the sloping ground lying between the Surapadoo bund and Mr. Ritchie's house having been ploughed up recently, the late heavy rains had washed into the tank a large quantity of the loosened earth, and the water surrounding the tanks for the supply of Madras was highly coloured by it.

4. I addressed a letter* to the Superintending Engineer of the 4th Division, on the desirability of removing all vegetable life within the waterspread of the Red-Hills and Cholaveram Tanks, with the view of preventing the water intended for consumption in Madras from contamination by decaying vegetation, but the evil arising from extensive manuring and ploughing operations carried on within the watershed of these tanks, seems so gigantic, that I am induced to bring the matter to the notice of Government, without any delay, as the results of distributing an impure water, after the great expense the Municipality has been to in laying down pipes, would be most undesirable; I have therefore the honour to request that you would be so good as to obtain the sanction of Government for the prevention of the pollution of water in the storage reservoirs for the supply of Madras, from cultivation being carried on within their watersheds.

No. 167.

Note by the Acting Chief Engineer for Irrigation.

THE Officiating President of the Municipal Commission reports that the Executive Engineer had been obliged to cut off the connection between the pipes which supply Madras with water, and the channel from the Red Hills Tank, owing to the water having been rendered turbid by the washing into the tank of soil, during heavy rain, from land lying between Mr. Ritchie's house and the Surapadoo bund, which had recently been ploughed. Here there is no embankment, and drainage from the high ground must pass into the tank.

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22nd October 1872.*

2. It would be out of the question to prevent cultivation in the watershed of the Red Hills and Cholaveram Tanks as is proposed, for their watershed now practically includes the basin of the Cortilliar and its tributaries, and comprises an area of 770 square miles.

3. Cultivating within the waterspread of the tanks and highly manuring the lands within those limits, would doubtless prove injurious if carried on to any great extent; but, as a rule, manure is not used in cultivating the beds of tanks, as the deposit brought into the tank suffices to enrich the surface soil; if the lands within the waterspread of the tanks are manured, (as it is believed they are the property of Government), in letting them it might be stipulated that manure was not to be used in cultivating them or they might simply be rented for pasturage.

4. After heavy rain the water in the tank will always be discoloured owing to the nature of the soil in the neighbourhood of the tank, but the quantity of solid matter in suspension must be very small, and would not be likely to choke the water pipes; if, however, this is apprehended, and it is desired to prevent impurities of all sorts from entering the pipes, a filter should be constructed either immediately in rear of the head sluice in the tank or near the point where the supply channel ceases and the piping commences.

OOTACAMUND, (Signed) R. F. OAKES, Captain, R.E.,
24th August 1872. Acting Chief Engineer for Irrigation.
~~To the Secretary to Government, Public Works Department~~

REFERRED to the Revenue Department with a Note by the Acting Chief Engineer for Irrigation.

OOTACAMUND, (Signed) R. F. OAKES, Captain, R.E.,
26th August 1872. Acting Joint Secretary to Government, P. W. D.

REFERRED to the Acting Collector of Chingleput for report through the Board of Revenue.
26th August 1872. (Signed) W. HUDLESTON,
Secretary to Government, R. D.

Letter from R. W. BARLOW, Esq., Acting Collector of Chingleput, to the Secretary to the Board of Revenue, dated 10th September 1872, No. 376.

As ordered in the enclosed endorsement by the Secretary to Government, on a letter from the President of the Madras Municipal Commission, No. 190, of the 19th ultimo, and the note No. 167, dated 24th idem, by the Acting Chief Engineer for Irrigation thereon, I have the honour to report—

(1). That it would be impossible to attempt to interfere with, or regulate the mode of cultivation, in the enormous area comprising the watershed of the Red Hills and the Sholaveram Tanks.

(2). That if a filter is considered necessary on account of the possible silting up of the pipes, owing to the water passing through depositing the earthy

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matter with which it is charged, it should be placed where the open channel terminates, and the pipes commence, as there is a good deal of wash from the channel itself; and, during heavy rains, the drainage from the banks, simply would discolour the water. If a greater head is required for the water, as I am informed it is for easier distribution, this and filtration might be attained at one and the same process.

(3). Manure is a good deal used in cultivating the lands forming the watershed of these tanks, but I do not believe the quantity is sufficient to foul the water, and affects it little more than is the case as regards ponds and reservoirs in England, where highly manured lands form the watershed.

(4). Lands within the waterspread of tanks, are not, as a rule, manured heavily, if at all, as the soil is sufficiently fertilized by the silt, and deposits left by the water as it recedes; but as regards the Red Hills Tank, after this year, when all compensation claims will have been settled, no cultivation whatever will be permitted within the highest line of waterspread, as laid down in the project.

(5). During the North-East and South-West monsoons, when there is heavy rain in the neighbourhood, or when heavy freshes come down the Cortilliar, the water of the tank will be more or less discoloured throughout with earthy matter, but whether letting the water through the pipes in this state without filtration, would choke them up, except after an indefinite number of years, I must leave others to decide; if such must be the result, a filter seems the only remedy. discoloured throughout after showers, but only for some distance from the edges according to the rain-fall, by running the pipes, (of course keeping the necessary level), from 80 to 150 yards into the tank, like a drain into the sea in English watering places, the taking in of such discoloured water could be avoided, but I do not of course know what Engineering difficulties my suggestion may involve.

(7). As regards the weeds and decaying vegetation in the tank itself, I believe that the existence of the former does no harm to the water whatever, rather the reverse, as they are growing, and absorb impurities if anything; but if they die and wither, when the water recedes, they might then be collected and burnt. As to the latter, I do not think there is sufficient of it to do harm; when they saw the water was rising, the ryots or other villagers interested in the lands, cleared and carried away all the scrub, etc., they could lay hands on.

2. As regards the particular lands, the cultivation of which caused this reference, I have just inspected them, as well as the borders of the Red Hills Reservoir generally; only half a cawny of the portion so cultivated lies within the highest waterspread anticipated; they are Punjab, consisting of about 21 Acres, and lie, as stated by Colonel Ritherdon, between Mr. Ritchie's house and the termination of the Surapadoo bund, which ceases here, owing to the high ground, and the bund does not commence again till about $\frac{1}{3}$ rd of a mile to the north-west. As the land here is light, and slopes considerably towards the water, sudden showers after ploughing would carry a good lot of loose earth into the tank, and perhaps, as the spot is so near the Municipal sluice, it might be advisable to take up the portion, lying say west of a line from stone No. 2 to the north end of the Surapadoo bund.

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3. The total cultivation this season, within the waterspread, according to the project is Acres 120; this has been mostly ploughed in the last few months, as the water receded, and little or no manure has been used, and in no case had compensation been yet paid for such lands. As before observed, no cultivation will of course be allowed within the waterspread when the claims have been settled, and similar orders will be issued as regards Sholaveram. I may add that I intend all these compensation cases to be disposed of by January next.

SUBMITTED to Government, with reference to their endorsement, dated 26th August 1872.

2. The Board observe that the cause which has led to the discolouration of the water drawn from the Red Hills Tank for the supply of Madras, can be readily obviated. It is only necessary to check the wash from the newly ploughed slope which is near the sluice of the supply channel; this may be effected by transverse drains or by terracing the slope, or by any other method approved by the Engineer Officers. It will be desirable to obtain possession of this slope at once under the Act unless the Collector can obtain possession of it on reasonable terms, a point on which he should satisfy himself as soon as possible.

3. There is no reason, the Board believe, to fear any greater mischief than temporary discolouration of the water, which might be obviated by a filter if it is

No. 188.

ORDER THEREON, 22nd October 1872, No. 1,461.

Miscellaneous.

COMMUNICATED to the Acting President
Madras Municipal Commission.

(True Extract.)

(Signed)

W. HUDLESTON,
Secretary to Government.

To the Acting President of the Municipal Commission,
,, the Board of Revenue.

Govt. of Madras

REVENUE.

To

THE ACTING PRESIDENT OF THE
MUNICIPAL COMMISSION, MADRAS.

&c., &c., &c.

Dated October 22nd.

Recd.

Encl.

G. O., 22nd October 1872, No. 1,461.

OCTOBER.

Nos. 187-188.

Red Hills Tank. — Proceedings Board of
Revenue submitting the Collector's letter regard-
ing the discolouration of the water, communicated
to the President of the Municipal Commission.

Exd. G. A. Turton.
,, the Acting Collector of Chingleput.

Red Hills Tank. — letter from the Collector
of Chingleput regarding the discolouration of the
water drawn from — for the supply of Madras,
submitted to Government, with suggestions for
preventing this discolouration.

OCTOBER.

No. 1,958.

Received 17

PROCEEDINGS, 3RD OCTOBER 1872, No. 1,958.

Encl.

Way No 3348.
Rev. 1872. Sep.
Board of Revenue,
MADRAS.

Handwritten notes and signatures:
"I have been informed that the water from the Red Hills Tank is discoloured by the wash from the newly ploughed slope near the sluice of the supply channel. It is only necessary to check the wash from the newly ploughed slope which is near the sluice of the supply channel; this may be effected by transverse drains or by terracing the slope, or by any other method approved by the Engineer Officers. It will be desirable to obtain possession of this slope at once under the Act unless the Collector can obtain possession of it on reasonable terms, a point on which he should satisfy himself as soon as possible."
G. A. Turton
G. O., 22nd October 1872, No. 1,461.

Handwritten notes:
1 To the President of the Municipal Commission
2 To the Board of Revenue
3 To the Collector of Chingleput
4 To the Collector of Madras
5 To the Collector of Tanjore
6 To the Collector of Tiruchirappalli
7 To the Collector of Tirunelveli
8 To the Collector of Vellore
9 To the Collector of Pondicherry
10 To the Collector of Karaikal
11 To the Collector of Yanam
12 To the Collector of Mayyazhi
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