M.R.O. 1—10,006—23-2-50.

(1) Number of pages _____

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No. / ~~B.P. No.~~	1376	Press / Mis.	
Dated	22 - 5 -	1950	~~195~~ .

Not to be folded or roughly handled

Read the following:—

No. 475. From residents of Perambore and Veysurpaudy, dated 30th March 1874,

---

No. 476. ORDER THEREON, 22nd May 1874, No. 1,376.

IRRIGATION, No. 44.

THE Government observe that the proprietors and residents of Perambore and Veysurpaudy may rest assured that all that is possible will be done to render the Red Hill Lake secure. No work or expense necessary to this object and end has been, or will be, left undone, or avoided. Slips and settlements of embankments formed under such circumstances as those of the Red Hills Tank are almost, if not quite, unavoidable; and certainly when these occur it cannot be denied that some risk of a breach is experienced. Hitherto however the Government judge, from the reports which have from time to time been laid before them, that the bunds of neither the Red Hills nor the Cholaveram Tank have been in any real danger of giving way, and every year danger of this kind is rendered less probable by the detection and reformation of weak places, and the consolidation of the bunds generally.

2. Without a prior knowledge of the locality in which a breach might take place, and of the circumstances of the tract of country below the tanks at the time, it is not possible to demonstrate what the precise effect would be; but it may be noticed that the direction which the released waters would take from a breach in any part of the main bund of the Red Hills Tank would be north-easterly, that an existing ridge would prevent much water flowing towards Perambore, and that no water at all would flow towards that place except by a circuitous route, and that no flood of serious moment could extend to the south of the railway embankment. Again, the greater part of the main bund is based on a laterite formation, and this, which from its permeability, has been a principal cause of the slips which have occurred, would, from the resistance which it would offer to the cutting down of a breach, make such an accident of comparatively little danger to the inhabitants of either the villages below the tank or of the suburbs of Madras. A breach in the small detached bund, at one end of which the Municipal sluice is situated, would, were the conditions of depth of water the same as those of the main bund, be a more serious matter, as the escaping water would be to the southwards of the ridge already noticed, but the depth of water there is comparatively small, and the ground, except where a narrow approach has been cut to the town sluice, is high, so that practically a breach in this bund, which is, moreover, a very improbable contingency, would not be of importance to the safety of those dwelling below the tank.

3. While, therefore, viewing the anxiety of the inhabitants and proprietors of Perambore and Veysurpaudy as not unnatural, the Government consider that it has to a great extent been unfounded, and that, while ground directly or indirectly

Proceedings of the Madras Government, Public Works Department.
22nd May 1874.

commanded by a great reservoir must, in the nature of things, be less safe than were no such reservoir in existence, the risk is practically inconsiderable, and all that is practicable to reduce that risk to a minimum has been, and will continue to be, done.

(True Extract.)

Lieut.-Colonel, R.E.,
Joint Secretary to Government.

To Mr. J. W. Gantz and other residents of
Perambore and Veysurpaudy.
To the Consulting Engineer for Railways.
" District Engineer, Presidency.
" Public Depart.
" Dept. Engr. Chingleput.

Exd. S. T. Austin.
Spare Copies

(2)

To,

The Secretary to Government
in the Department of Public Works,
Fort Saint George.

Sir,

1. We the undersigned landed proprietors and residents of Perambore and Veysurpandy, beg to address you on a subject of the utmost importance to us, and trust that Government will be pleased to accord to it the careful consideration it so eminently deserves.

2. The recent enlargement of the Red Hills Lake for the purpose of storing a two years supply of water for the service of the Town, however well calculated to answer the object for which it is intended, is to us a source of anxiety and apprehension at the return of every monsoon. In Octr and in Novr 1872, during heavy rains, when a large part of Madras was lying under water, and all the Tanks in the neighbourhood were full to overflowing, - the embankment of the Red Hills Lake which had previously shown signs of weakness, was in a dangerous state, and yielding under the pressure of the water it enclosed. The revetement to a considerable extent had sunk in the middle, the earth-work was in decline, water was

was oozing out at the base, and a breach, as the natural consequence, was almost certain. Providentially the heavy rains ceased, and the Red Hills Lake having been relieved, narrowly escaped the destruction which was impending, the effect of which threatened to be the more disastrous as the Cholaveram Tank×, which commands the former and is connected with it, was itself in a very critical state at the time. Had the Red Hills Lake burst its embankment, it is easy to imagine what would have been our fate, already hemmed in with a considerable depth of water on every side for which the outlet to the Sea is but scanty, and the rotten banks of the Veyasurpandy Tank threatening to give way at any moment. In the panic which these circumstances induced, several of the residents of Veyasurpandy & Perambore quitted their houses and sought refuge among friends in a more secure locality.

× This Tank is 6ft feet above mean sea level, it is the feeding reservoir of the Red Hills Lake from which it is about 3 Miles distant, and is situated on a level of 19 feet above the Lake.

3. These are well known facts as they were noticed and fully discussed in the newspapers at the time; and Government, alive to the impending danger, adopted immediate measures for the prevention of any disastrous results, - the Calingula was broken down to admit of a more rapid discharge of water, and, subsequently, in the dry weather ensuing, the dilapidated portion of the embankment was strengthened and repaired.

The

4. The monsoon of 1873, though by no means so heavy as that of the preceding year, brought with it a repetition of the evils to which we were exposed in that year, for the embankment of the Red Hills Lake was again on the point of giving way, and again some of the residents of Veyasurpandy & Perambore were forsaking their houses to seek shelter elsewhere. On this occasion the damage to the embankment occurred further to the South, and not at the same place as in 1872, nor near it, which, we submit, is a clear proof that, throughout, the stability of the embankment is not to be relied upon, especially as at a place further South still, it was found necessary to raise a wall at the base to secure the embankment against the effects of percolation which was going on there. To return, however, to the damage caused by the comparatively mild monsoon of 1873, and the danger which for several days it threatened. The outside of the embankment had slipped to the extent of about 100 yards, from the base to the apex, and though the inner side protected by the revetement was apparently safe, and there was still left some three or four feet of earthwork of the width at the top, yet, the work of destruction could not be said to have stopped, and even at the time the filling up of this yawning gap was going on, its successful completion was looked

looked upon as contingent upon the continuance of fair weather, and no further damage occurring.

5. The breach above referred to occurred on the 2nd Dec. last. It had rained some days previously, and after a rather heavy rain on the day before, the 1st Dec, which ceased early in the afternoon, the weather cleared up. We, however, had no intimation of what was going on at the Red Hills, until the noon of the 4th, when a some what exaggerated account of the danger reached us. Upon this two of us repaired, thither, and reaching our destination at 5 P.M. found the actual damage to be as stated above. Here we were met by Mr. Harington, the Engineer in charge, and the Collector of Chenglepet, both of whom kindly pointed out to us what had occurred and explained the measures that had been adopted to repair the damage. Large numbers of tank diggers, men & women, were hard at work, & working day and night, but it was obvious that the extensive gap would take several days to fill up, and if rain set in again before the work was thoroughly completed, all that had been previously done would be washed away, and

and the danger of a breach would be as imminent as ever. Even without rain there was still the likelihood of the embankment contracting to fall in, and in such case, Mr. Harington promised to give us timely warning.

6. From all that we have heard and seen we are impressed with the belief that the embankment of the Red Hills Lake is far from being sound, or an efficient enclosure to so vast a body of water as it is intended to hold; not, as we understand, from a defect in the design, but from defective construction; and the liability to accidents such as those above described, becomes greater, and to remedy them when they have occurred, becomes more difficult, by the swampy nature of the ground at the base of the embankment, caused by the earth having been taken thence to raise the bund: the result is that the bund, so formidable in its dimensions, has no foundation of solid ground to rest upon, and when, in the case of an accident, earth is wanted to repair the damage, it has to be obtained from a very considerable distance, as was the case last year to our certain knowledge, the existing swamp preventing a shorter route, and rendering the filling up of a breach a slower, and consequently an uncertain process.

In

In such cases, it need hardly be remarked, that promptness of action is the only safety.

7. It will be obvious from all that we have stated above that our life is one of anxiety and apprehension during the months of the north-East monsoon, as in the present uncertain and unsafe state of the Red Hills' Lake, we know not at what moment, when rain is heavy and continuous and we are girt around with water, the news that the bund of this Lake has given way, may reach us; or whether we shall receive any intimation at all of such a calamity beyond a great and sudden rise of the water around us, tending to the destruction of our property and the peril of our lives.

8. Under these circumstances we trust the Government will be pleased to favour us with some definite and authoritative expression of opinion as to what may be apprehended in the event of such a contingency occurring as the bursting of the embankment at any of the points where signs of weakness are visible, and where, consequently, a breach may be likely to occur. The opinion of a competent authority but expressed in vague and general terms, is that in such an event the water would naturally rush through the valley running in a north-easterly direction towards the Sha-

Shadiancoopum lock on Cochrane's Canal. We think it may be so if the site of the breach be where the bund was about giving way in 1872, but not if the breach occurred further South, as at the place where the earth had slipped outside the embankment in 1873, or at any other point still further South. In such case the flow of the water would naturally be eastwards, directly towards us, and it needs only to be stated that the volume of water contained in the Lake is immense, and that the Red Hills, some seven or eight miles distant from us as the crow flies, are situated at an elevation of 46 feet above mean sea level, while the height of Perambore & Veyasurpandy is not more than 6 or 7, and in some places barely 10 feet, above that level, to indicate how critical our position is with reference to that Lake, and how seriously we are likely to be affected by any disaster to it. It may be said that as the water has to travel some 7 or 8 miles previously the force of the rush will be spent long before it reaches our locality, and but a comparatively small portion of it will find its way to us. Not so, however, when it is considered that the intermediate space is more or less under water during a heavy monsoon, and that several large Tanks intervene, all of which will successively burst their banks, and con-

Vide para 4.

contribute in no small degree to swell the volume of water rushing towards our locality, already water-logged, both from its low-lying position & from the insufficiency of water ways to the outlet to the sea at the Coonn Bar, itself quite insufficient in such an emergency. These points duly weighed, we trust the Government will not look upon our request as unreasonable, but will favour us with the expression of their opinion as to our capability in the event of a contingency such as we apprehend; and also be pleased to inform us if any measures will be adopted during the coming dry season, to render the embankment substantial, and more secure than it as at present.

We have the honor to be
Sir
Your Most Obt. Servants.

Madras.
30th March 1874

J Glanty
Pitt Turnbull
Chas Grant
Col. Hyde
H. Stephenson
W. Stephens
J. W. Thomson
J. H. Reddy
Mitchell
H. Pharoah

Public Works Department
1376

Proceedings of the Madras Government
Read the following
From the Residents of
Peramboor & Vepery Paddy (Here Enter &c — Dated
30th March 1874)

The Government observe that the Proprietors and Residents of Peramboor and Veyonpaudy may rest assured that all that is possible will be done to render the Red Hill Lake secure. No work or expence necessary to this object and end has been, or will be, left undone, or avoided.

Sd/ Pipon

co
of
lo
in
at
ar
th
as
es
te
=h
a
co
pr

slips and settlements of embankments formed under such circumstances as those of the Red Hills Tank are almost, if not quite, unavoidable; and certainly when these occur it cannot be denied that some risk of a breach is experienced. Hitherto however the Government judges from the reports which have from time to time been laid before them, that the bunds of neither the Red Hills nor the Cholaveram Tanks have been in any real danger of giving way, and every year danger of this kind is rendered less

30

probable by the detection and reformation of weak places, and the consolidation of the bunds generally.

2. Without a prior knowledge of the locality in which a breach might take place, and of the circumstances of the tract of Country below the tank at the time, it is not possible to demonstrate what the precise effect would be, but it may be noticed that the direction which the released waters would take from a breach in any part of the main bund of the Red Hills Tank would be North Easterly, that an existing ridge

W. Pharoah.

ridge would prevent much water flowing towards Peramhouse, and this only by a circuitous route, and that no flood of serious moment could extend to the South of the Railway embankment. Again the greater part of the main bund is based on a lateritic formation, and this, which from its permeability, has been a principal cause of the slips which have occurred would, from the resistance which it would offer to the cutting down of a breach, make such an accident of comparatively little danger to the inhabitants either of the villages below the tank or of the suburbs of Madras. A breach in the small detached bund, at one end of which the Municipal sluice is situated, would, were the conditions of depth of water the same as those of the main bund, be a more serious matter, as the escaping water would be to the Southwards of the ridge already noticed, but the depth of water there is comparatively small, and the ground, except where a narrow approach has been cut to the Town sluice

sluice is high, so that practically a breach in the bund, which is moreover a very improbable contingency, would not be of importance to the safety of those dwelling below the Tank.

3. While therefore viewing the anxiety of the inhabitants and proprietors of Perambore and Veyasarpandy as not unnatural, the Government consider that it has to a great extent been unfounded, and that, while ground directly or indirectly commanded by a great reservoir must, in the nature of things, be less safe than were no such reservoir in existence, the risk is practically not considerable, and all that is practicable to reduce that risk to a minimum has been and will if necessary continue to be done.

W. Pharoah.

Mr. 16/4/76

G.W.

To Mr. J. W. Gantz & others resident of Perambore & Veyasarpandy
" Board Engr. for Rys
" S. E. Presidency
" Public Dept.
" D. E. Chief Engr.
S. Copies despd. to Balle 4/6/76.
Legt. S. Copies despd. to Do. 4/6/76

475-476.

Cir 18/4/24 RBB - Y Ra-cir - 22/4/24 RBB 11/5/24

H. Shastri

19321

Govt. of 1874 Madras.

PUBLIC WORKS.

To Mr. L. M. Gantz & others

Dated

Recd. Encl.

G. O. 22nd may 1874. No. 1376

Nos. 475-476.

Red Hill Lake

Passing orders on letter from the Residents of Perambac & Vazarpadi requesting to be favored with the opinion of Govt as to their safety in the event of the bund of the Red Hills Lake giving way