

Public Works (1897) Department.

Print soon

G.O., No. 721 I

DATED 3 August 89

18/97

[Despatch Abstract.]

Chintagunta tank, estimate of Rs. 35,000
for the restoration of — in Gaddapah
sanctioned with remark

120

3.8.97

Government { 1897 } of Madras.
PUBLIC WORKS.

Spare copies

AUGUST.

Estimate of Rs. 35,000 for the restoration of -- in Cuddapah division, sanctioned with remark.

Account.

ENCLOSURE.

Amount of estimate	...	...	...	...	...	...	35,000
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The second proposal has now been investigated and found feasible, and the present estimate for restoring the tank is based on this method of disposing of the surplus water. A feeder to the tank on the east side is on a high level, and it has been found practicable to enlarge this waterway for a certain distance, keeping the bed at F.T.L., and then to make a cut through a short length of high ground to join a drainage course which flows past Aravatipalle village and

The ground in breach must be *very carefully* prepared for new earth, all stones, vegetation, sand and other unstable material removed, and the ground benched, if not too hard. The new bund across the breach must be laid in six concave layers, well watered and rammed; the whole safety of the tank and railway will depend on this.

(Signed) S. B. MURRAY,
Executive Engineer.

29th January 1897.

Resolution—Mis. No. 4884, dated 5th July 1897.

Forwarded to the Chief Engineer for Irrigation for approval and sanction.

(True Copy and Extract.)

(Signed) R. V. SRINIVASAR,
Secretary.

No. 150 I.

Note by the Chief Engineer for Irrigation.

The breaching of the Chintagunta tank on 29th October 1874 is fully described in the papers printed with G.O., No. 729, dated 16th March 1875, and in the Irrigation Chief Engineer's note which forms part of those papers, the cause of the breach is referred to and the precautions which should be adopted when restoring the tank are laid down. Colonel Mullins was mistaken in thinking it was necessary to raise the full tank level over 5 feet in order to make it feasible to pass surplus into the basin of another stream. The plans do not afford the means of comparing his proposals with those now adopted, as the sections are plotted to a different datum and there is no common point of comparison, but it may be said generally that Colonel Mullins proposed to raise the tank bund about 10 feet, while it is now proposed to leave it at nearly the old level. The Executive and Superintending Engineers were probably not aware of the correspondence which took place in 1875 or of the estimate which was made in 1878 and have apparently failed to notice certain defects in the bund which it may be of the greatest importance to remedy. The ruin of the tank

Estimate for Restoration of _____
Chiniquita Ranch - Calhoun Co.

UNDER date the

READ the following

Proceedings from the Board
of Revenue, Revenue settle-
ment, Land Records and
Agriculture. } (H E No 4884 Mis dated 5-7-97
Investigations
Dept 8P

Note by the Chief Engineer for Irrigation (H E No 150 D of 24 July 97)

The following estimate is sanctioned

Irrigation

L3 Minor Works and Navigation
Minor works for which neither
Capital nor Revenue Accounts
are kept P W D.

Buddapali Division
Original Works

Restoration of Chutagunta
Tank

Estimated Rupees 35000
2 This sanction is registered
as No 63. I of 1897-98

in 1874 was found to be due to the top of the bund being formed for a depth of 3 feet to 8 feet of shale, stone and gravel, and when the District Engineer inspected the tank (the water being then 3 feet below the lowest part of the bund) he found a large leak through which water was passing. As the front was also slipping badly and great fissures had formed, it was evident that a breach was inevitable and the bund was cut at the end in the hope that the hard soil would resist scour and the breach be kept within moderate limits. In giving instructions for the restoration of the work the Chief Engineer directed that the stony material should be removed from the top of the bund and that certain precautions should be taken to make a water-tight connection between the bund closing the breach and the hill on which it abuts as well as with the hard soil underlying the bed of the breach. With regard to the top of the bund it will be sufficient to excavate a trench as far down as the bad material extends (as provided in the estimate of 1878) and fill it with puddle. The other precautions connected with the prevention of leakage under the new bund are reasonable and necessary and, considering the destructive effect on the railway which another breach would have, should nowise be neglected.

The works provided for the disposal of surplus are of a suitable kind, but the drop in the supply channel is not of sufficiently strong design. Masonry wings and side walls should be allowed and the masonry floor should be made 12 feet wide with a curtain wall founded in hard material. Unless the floor is laid on very firm soil, 2 feet thickness is hardly enough. The nature of the soil should have been ascertained and stated on the plan.

To cover the extra work ordered in this note, a lump sum of Rs. 500 has been added to the estimate for the bund and Rs. 500 to the estimate for this drop, bringing the total estimate to Rs. 35,000. It should be mentioned that Government decided in G.O., No. 57, dated 6th December 1875, not to restore the tank if the cost should amount to more than Rs. 25,000 and when the District Engineer reported that the cost would be Rs. 50,000, the subject was dropped until the end of 1877, when it was taken up again presumably on account of the famine; but as the famine was over when the estimate was received, nothing further was done. It is recommended that the estimate be sanctioned as an ordinary work and put in hand at once, if required, for famine relief. The revenue expected from the restoration of the work is Rs. 1,500.

(Signed) W. HUGHES,
Chief Engineer for Irrigation.

24th July 1897.

ORDER—No. 721 I., dated 3rd August 1897.

The following estimate is sanctioned :—

Irrigation.

43. Minor Works and Navigation.

Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.

Cuddapah Division.

Original Works.

Restoration of Chintagunta Tank.

								Rs.
Estimate	9-8	0-0	1-1	0-0	1-1	0-0	0-0	35,000

2. This sanction is registered as No. 63 I. of 1897-98.

3. The attention of the Superintending Engineer, III Circle, is drawn to the concluding paragraph of the foregoing note of the Chief Engineer for Irrigation.

(True Extract.)

Under Secretary to Government,
Irrigation Branch.

To the Chief Engineer for Irrigation.

Superintending Engineer, III Circle, with nineteen enclosures.

Examiner, Public Works Accounts.

Board of Revenue.

Exd. T. K. Narayana Aiyangar.

Public Works (1897) Department.

CURRENT No. 7683

Order

Print soon

From

The Chief Engineer
for Irrigation

No. 150.5

Dated 24. 7. 97

Received 3. 8. 97

Enclosures 22 (6 leaves)

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SUBJECT.

Chautauque Fault. Cold Spring
on - Estimate for the restoration
of - Note recommending
that the - be sanctioned
as an ordinary work, to be
put in hand, if required
for famine relief.

3. The attention of the Super-
-intending Engineer in Charge
is drawn to the concluding para
of the foregoing note of the
Chief Engineer for Irrigation

24. 7. 97

W.H.

I

To The Chief Engineer for Irrigation
The Superintending Engineer in Charge
The Examiner Public Works Accounts
The Board of Revenue

FURTHER PAPERS.

No 57 - 2

Note by the Chief Engineer for Irrigation

Flagg B.

The breaching of the Chintagunta Tank on 29th October of 1874 is fully described in the papers printed with G.O. No 729 dated 16th March 1875 and in the Irrigation Chief Engineer's note which forms part of those papers. The cause of the breach is referred to and the precautions which should be adopted when restoring the tank are laid down. Col Mullins was misled in thinking it was necessary to raise the full tank level over five feet in order to make it feasible to pass surplus into the basin of another stream. The plans do not afford the means of comparing his proposals with those now adopted as the sections are plotted to a different datum and there is no common point of comparison, but it may be said generally that Col Mullins proposed to raise the tank bund about 10 feet while it is now proposed to leave it at nearly the old level. The Executive and

and Superintending Engineers were probably not aware of the correspondence which took place in 1875 or of the estimate which was made in 1878 and have apparently failed to notice certain defects in the bund which it may be of the greatest importance to remedy. The ruin of the tank in 1874 was found to be due to the top of the bund being formed for a depth of 3 feet to 8 feet of ~~shell~~^{shale} stone and gravel and when the District Engineer inspected the tank (the water being then 3 feet below the lowest part of the bund) he found a large leak through which water was passing. As the front was also slipping badly and great fissures had formed, it was evident that a breach was inevitable and the bund was cut at the end in the hope that the hard soil would resist scour and the breach be kept within moderate limits. In giving instructions for the restoration of the work the Chief Engineer directed that the stony material should be removed from the top of the bund and ^{that} certain precautions should be taken to make a water-tight connection between the bund closing the breach and the hill on which it abuts as

as well as with the hard soil underlying the bed of the breach. With regard to the top of the bund it will be sufficient to excavate a trench as far down as the bad material extends (as provided in the estimate of 1878) and fill it with puddle. The other precautions connected with the prevention of leakage under the new bund are reasonable and necessary and considering the destructive effect on the railway which another breach would have, should nowise be neglected.

The works provided for the disposal of surplus are of a suitable kind but the drop in the supply channel is not of sufficiently strong design. Masonry wings and side walls should be allowed and the masonry floor should be made 12 feet wide with a curtain wall founded in hard material. Unless the floor ^{is laid} on very firm soil 2 feet thickness is hardly enough. The nature of the soil should have been ascertained and stated on the plan.

To cover the extra work ordered in this note, a lump sum of Rupees 300 has been added to the estimate for the bund and Rs 500 to the estimate for this drop, bringing the total estimate to Rs 35000. It should be mentioned that

that Government decided in G.O. no 57 dated 6th December 1875 not to restore the tank if the cost should amount to more than Rs 25000 and when the District Engineer reported that the cost would be Rupees 50 000, the subject was dropped until the end of 1877 when it was taken up again presumably on account of the famine but as the famine was over when the estimate was received, nothing further was done. It is recommended that the estimate be sanctioned as an ordinary work and put in hand at once, if required, for famine relief. The revenue expected from the restoration of the work is Rs 1500

W. Hughes

Chepauk
24 July 1897

Chief Engineer for Irrigation

0451
2683/97

To

The Joint Secretary to Govt
P W D Irrig Branch

Public Works (1897) Department.

CURRENT No. 315 M.

W. Hughes

Order

From The Board of Revenue
Settlement

No. 4884 Iris:

Dated 5-7-97
Received 12-8-97
Enclosures 19
Spare copies

SUBJECT.

Goviindamma Tank,
Jammalamadugu
Talug, Cuddapah Dist.
Forwarding to E. I. for
approval & sanction of
— to be started as
a famine relief work.

To C. I. to
check estimate

12/1/97

12/1/97

BACK PAPERS.

No.	Date.
R 20 CD	9-4-97

FURTHER PAPERS.

No.	Date.
L 150 J	24. 7. 91

Report to accompany the estimate for restoring Chentagunta Tank - Jammala Madugula Taluk.

Amount of Estimate Rs 35000
32500
25200

For instructions in this work vide S. S. Inspection Notes for March 1897

L B U L
22-4-97

Slipped A.

This is an old native work which is said to have been made upwards of 500 years ago. It is generally known as the "Govindamma Tank of Chentagunta" & is situated about one mile south of Chentagunta village. The site selected is an admirable one for a tank, being where a stream, with a catchment area of more than 12 sq. miles, passes between two hills only about 300 yards apart. These hills are so steep that byewashes at the ends of the bund were out of the question and as there seemed no other way of disposing of the surplus water the heroic alternative of not having a surplus escape at all was adopted when the tank was made. The bund was made about 50 ft high, apparently with the idea that such a big tank never could fill. This policy seems to have been successful & the tank existed up till 1877. In

The tank breached on 30th Oct. 1874 vide P.M.S. 16/3/75

W. R. B.

September of that year there was very heavy rain & the tank is said to have "almost filled". The Madras Railway, between Muddanur & Kondapuram stations, runs below the tank, & about 3 miles from it, so the breaching of the latter would have seriously damaged the railway. The District Engineer, then in charge of Buddapah, presumably with an idea to save the railway, ordered the tank to be breached before it got any fuller. This was done, but the result was not altogether satisfactory as some miles of the railway were washed away, & from that date, the tank has been abandoned & no attempt has been made to restore it. The reason for this has undoubtedly been the difficulty about disposing of the surplus water, for it is not likely that the old native expedient would again be resorted to.

There are only two ways of getting rid of the surplus -

- 1st. a weir at the site of the breach
- 2nd. cutting a channel through

the high ground to the east of the tank & disposing of the surplus there.

The first of these proposals is impracticable owing to the cost of such a weir. Ground level at the breach is 53 ft below the proposed F. F. L. & to drop water such a height a very expensive masonry work would be required.

The second proposal has now been investigated & found feasible, and the present estimate for restoring the tank is based on this method of disposing of the surplus water -

A feeder to the tank on the east side is on a high level, & it has been found practicable to enlarge this waterway for a certain distance, keeping the bed at F. F. L., & then to make a cut through a short length of high ground to ^{join} give a drainage course which flows past Aravatipalle village & eventually into the Penner River. The length of Channel to be widened & the line for the new one were adopted after

a series of levels had been taken were those which give the least amount of cutting.

To prevent the supply coming down the feeder, (a part of which is to be enlarged), from going down the Surplus channel B B' (see tracing sheet 204), instead of into the tank, it has been decided to ^{lower} excavate the bed of the stream from just above the point B down to a point 1000 ft lower down, to such a level that when the stream is carrying its maximum discharge water level will not be above bed level at the head of the surplus channel B B'.

It will thus be seen that the length AB of the feeder will answer two purposes.

(a) it will be excavated down to H. T. L for a width of ¹³⁵~~112~~ ft so as to be an approach to the surplus channel B B'.

(b) it will be excavated from B for a length of 1000 ft towards A.

for a width of ⁸⁰~~60~~ ft, with its bed level at B 3 ft below the bed of the surplus channel at the head.

Hydraulic details of these channels are given separately.

There will be a considerable amount of rock cutting to be done in excavating these channels & what is considered a fair allowance has been made for it in the estimate.

The work allowed for for closing the breach consists simply of an earthen bund, with 20 ft top width, front slope of $1\frac{1}{2}-1$ (revetted up to H. W. L + 1 ft) & a rear slope of 2-1.

These slopes have been given as the only soil available is tank silt, which cannot be considered good earth. The ground in the breach is hard, & no clearance is necessary, & the existing bund, except for a certain amount of repacking of revetment & making ^{up} of the rear slope, is in good order.

The old tank had two sluices, but one was destroyed when the breach occurred. The remaining one is in

good order, so far as can be ascertained, & the villagers of Chintāguntā also state that it is, so no provision is made for either repairing it or constructing a new one -

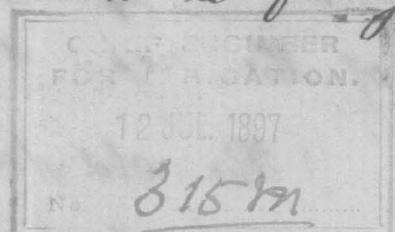
The old ayacut was 350 acres & this figure has been taken again for the restored tank. Most of this area could be brought back at once to wet cultivation. From statements furnished by the village Karnam the ^{annual} net increase of revenue if the tank were restored would be Rs 1500/-

The tank bed is at present let out on pattah, but only on the understanding that no compensation is to be paid if the tank is restored.

The total amount of the estimate is Rs ~~25200~~ ^{21500 32500 35000}, so the expected increase of revenue (Rs 1500/-) represents a return of ^{4.5} ~~6~~ % on the outlay, which is fairly satisfactory -

4.6 P.C. exclusive of indirect charges.

28/1 1/11
28.1.97



Executive Engineer
25-1-97

The ground in breach must be very carefully prepared for new earth, all stones, vegetation, sand and other unstable material removed, and the ground benched, if not too hard. The new bund across the breach must be laid in layers, well watered and rammed. The whole safety of the tank and railway will depend on this.



Proceedings of the Board of Revenue

(Revenue Settlement, Land Records and Agriculture),

Dated 5th July 1897.

No. 4884 m.

READ

the following letter from the Collector of Buddapah dated 19th June 1897, Reference No. ^{Sett.} 2367 of 97

I have the honor to forward herewith an estimate with a plan &c, for Rs 32,500 for repairing Govindamma tank of Chintāguntā, Gammalamadugai Taluk.

2. The tank is said to have been breached in 1877 and the bed lands were assigned on pattah, on the condition that they should be given up without compensation whenever wanted. Some of the pattadars were examined and they agree to give up their lands, and to the restoration of the tank.

3. The tank is situated at a distance of 3 miles west of Mondanur, a railway station on the Madras railway and it will afford labour for 4333 persons for 3 months.

4. I request that sanction may be accorded for taking up the work as a Famine Relief work when necessity arises.

Resolution

Resolution.

Forwarded to the Chief Engineer for
Irrigation for approval and sanction

(True copy & extract)

R. V. Srinivasan

Joint Secretary

To,

The Chief Engineer for
Irrigation with the papers

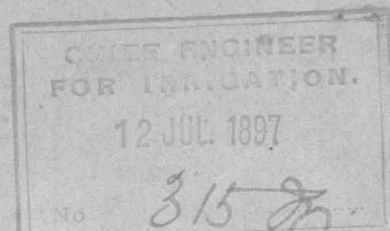
1897.

(Sett 20-2,000-18-11-95.)

Board of Revenue

(Revenue Settlement, Land Records
and Agriculture),

MADRAS.



To

The Chief Engineer
for Irrigation

No. of Enclosures.

Proceedings, dated 5th July 1897.
No. 4884, No.

Subject.

Govindamma tank, Gammalamana-
dugu Taluk, Chuddanah District.

Forwarding to the Chief Engineer
for Irrigation for approval and
Sanction, estimate of — to be
started as a Famine Relief
work.

Q. 252
7683/57