

G.O., No. 546

DATED 10 June 1897

[Despatch Abstract.]

Peda Oopalam River Channel. Estimate
of Rs. 12700 for embanking the surplus
Channel from —, Vizalapatam R.
Sanctioned under "33. Damine Relief."

100
6
12/6
7C 6 97

Estimate of Rs. 12,700 for embanking the surplus channel from —, Vizagapatam division, sanctioned under "33. Famine Relief."

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following paper:—

Inspection Notes of J. C. LARMINIE, Esq., M.I.C.E., Superintending Engineer,
I Circle, dated the 18th May 1897.

Peda Oopalam River Channel and Banking Estimate.—This is really the second main branch of the Varaha river, bifurcating at the Pennagola dam about 2 miles above Rayaveram (not far below the main trunk some 8 miles south-west of Yellamanchili). About 3 miles below its head and right across the stream is the Peda Oopalam tank, two vent supply sluice. While the main stream is turned off sharp to the left over a weir 160 feet in length into what is called the Peda Oopalam surplus channel.

2. About two months ago, the Executive Engineer (then Mr. Inglis) sent in an estimate, amounting to Rs. 11,870, for extensive banks 9,390 feet in length for this channel, requesting sanction by wire as the Collector was clamorous for work to avert the necessity of starting relief work.

3. As the proposals of the estimate seemed very questionable I returned it for further explanation and report, which Mr. Inglis went away without furnishing (as he very well might, having come out and spent several days in the neighbourhood).

4. Meantime the Collector's demands for work becoming more urgent, I consented to Mr. Allen's starting the banks on the understanding that he would inspect the locality and that the height of the banks and head of water as proposed against them should be reduced.

5. Mr. Allen has, nearly ever since, been occupied starting relief works and the banking work was also started for the above reasons and has, I now find, been carried out for the greater part of the original length of 9,390 feet (with a further addition of 1,110 feet). As I originally suspected (paragraph 3), it is one of these instances where banks are more likely to do harm than good.

6. In fact no extension of the right bank from the Peda Oopalam tank bund is at all required and the left should have terminated at the old tank weir. Below this point, on those very rare occasions when a high fresh came down the river, the water spreads harmlessly about and escaped through various old channels from some of which irrigation was carried on and whose supply is now cut off by the banks carried across them. Other complications have also arisen; field drainage into the surplus channel has been cut off and service inams cut to pieces and deprived of means of cultivation.

7. The Gandhi channel surplus, which takes off from the Peda Oopalam river channel near Rayavaram through a 43 feet weir, again joins the surplus channel opposite the hill in the right bank. How this is to be arranged for does not appear to have been thought of. The intention seems to be to carry the left bank right across the Gandhi channel! (It had better be left open.)

9. The work ought fairly to be debited to "Famine" as I should never recommend its execution as an agricultural work, while as the former, it has no doubt fulfilled a useful part and afforded employment to labour, from even so great a distance as Tuni.

Kotha Pallam new Head Sluice.—In the right bank of the Peda Oopalam river channel, the bank for 12 yards above and 15 yards below the sluice should be rivetted right up from river bed to level of top of platform. Otherwise the bank here, which is new and not too substantial, will be apt to breach.

A sketch was made in the maistry's order book.

ENCLOSURE.

REPORT to accompany the estimate for embanking the surplus channel from Peda Oopalam river channel.

The surplus channel is intended to discharge the surplus from the Peda Oopalam river channel just above the head sluice and passes over the anicut lately constructed in the left bank of the river channel at Basavapad. Before the construction of this anicut, the left bank of the river used to breach at this place during high freshes and a large quantity of the flood water was being discharged through this Gedda and a small quantity through the channel which had an open head. The freshes that passed down the Gedda swept over the country submerging the fields commanded by the Peda Oopalam tank. In many cases the fields have become useless being covered with sand. Since the construction of the anicut and the head sluice the channel has been brought under regulation; all the surplus water has to find its way through the Gedda and over the country; and the damage to the fields has been considerably increased in proportion. The floods occurred at rare intervals and of very short duration. As the ryots have frequently complained of the damages, the necessity has arisen for embanking the Gedda for the protection of 916 acres yielding a revenue of Rs. 3,104. The ryots are also willing to give the land required for embankment free of cost. A written declaration herewith enclosed has also been obtained from them under personal instructions from the Superintending Engineer. The

* Weir 160 feet long, M.F.L. 7 feet on crest, possible afflux 3 feet.
† 9,390 by longitudinal section.

out this length, banks have been proposed on both sides as detailed below. The top of the new proposed bank is $4\frac{1}{2}$ feet above M.W.L., top width 6 feet, side slopes 2:1 on account of the poor nature of the soil. A part of the earth required for the banks will be taken from the sides of the Gedda and thus the bottom width of the Gedda will be made as per section. The breadth of the Gedda between the toes of the inner slopes of bund is 270 feet. Fall 4.80 feet in 5,000; depth of water 5 feet; side slopes 2 to 1; with this section the surplus course is capable of carrying 7,630 cubic feet, i.e., about 218 cubic feet more than the discharge over the anicut.

From the anicut to the head of the now proposed right bank the Peda Oopa'am tank bund serves as the right bank of the Godda, a leading bank will also be thrown from the tank bund to the head of the proposed bank as shown in the accompanying survey. Both banks are joined to existing banks on high ground about 400 feet apart.

All works will be carried out as per standard specification.

See accompanying notes of Inspection.

(Signed) JOHN INGLIS,
Ex. Engineer, Vizagapatam Divn.

No. 546 L., 10TH JUNE 1897.

No. 236 V.Z.

Copy submitted to the Chief Engineer for Irrigation with the estimate for sanction as a famine work.

22nd May 1897.

(Signed) J. C. LARMINIE,
Superintending Engineer, I Circle.

No. 119 I.

Submitted to Government with a recommendation that the estimate be sanctioned, the work having already been started as a famine relief work and for the most part carried out.

2. The Superintending Engineer describes in his inspection notes the circumstances under which he was in a manner compelled to sanction the commencement of the work without proper investigation and in general terms states the defects of the scheme. When the famine is over the scheme will have to be thoroughly investigated and the cost of providing for the disposal of the drainage now entering at both sides of the channel ascertained. Meantime openings for the drainage will have to be left in the bank.

31st May 1897.

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

ORDER—No. 546 I., dated 10th June 1897.

The following estimate is sanctioned :—

Irrigation.
33. Famine Relief.
Minor Works and Navigation.
Agricultural Works.
Original Works.
Vizagapatam Division.

Embanking the surplus channel from Peda Oopalam River Channel.

									RS.
Estimate	...	...	...	...	...	...	...	...	12,700

2. This sanction is registered as No. 34 I. of 1897-98.

(True Extract.)

Under Secretary to Government,
Irrigation Branch.

To the Chief Engineer for Irrigation.
 „ Superintending Engineer, I Circle, with seven enclosures.
 „ Examiner, Public Works Accounts.

Exd. A. F. Eccleston.

PUBLIC WORKS DEPARTMENT,
IRRIGATION BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the

READ the following

From Supp Enq 1st Cuck. no 23602 922.5-97
no 1192 431.5-97
Submitted to Govt

with a recommendation
that the estimate
be sanctioned, the
work having already
been started as a
famine relief work.
and better must part. carried out.

Order Terror 1-
no. 5462810-6.97
The following
estimate is same
tioned:-

Irrigation.
33. Famine Relief
Minor Works Major.
Agricultural Works.
Original works.
Vizagapatam Di.
Embanking the surplus
channel from Peda

2. The Supd Engr. describes in his inspection notes the circumstances under which he was in a manner compelled to sanction the commencement of the work without proper investigation and in general terms states the defects of the Scheme - When the famine is over the scheme will have to be thoroughly investigated and the cost of providing for the disposal of the drainage now entering at both sides of the channel ascertained - meantime openings for the drainage will have to be left in the banks -

2.54
1.69

4.697

Wt.

Popalam river channel-
Estimate Rs 12,700.
This function is
registered as No. 34-9
of 1897-98.

W.H.
31.5.97
31/5
57

Public Works (1897) Department.

CURRENT No. 5633

Order

From,
The Chief Engineer for Irrigation

No. 119. S.

Dated 31st May 1897
Received 10.6.97
Enclosures 9 (5 plans)
Spare copies

SUBJECT.

Embanking the Surplus Channel
from Peda Popalam river
Channel - Estimate for
Submits with a recommenda-
tion that the - be sanctioned.

To the Chief Eng. for I.
Subj. Eng. 1st Div. with Encls
Sd/- S.W.2.
1008
28/5/97

38.9
11/6/97

Ind 27/5

has to find its way through the gedda and over the country, and the damage to the fields has been considerably increased in proportion. As the ryots have frequently complained of the damages, the necessity has arisen for embanking the gedda for the protection of 916 acres yielding a revenue of Rs 3104/-. The ryots are also willing to give the land required for embankment free of cost. A written declaration herewith enclosed has also been obtained from them under personal instructions from the Superintending Engineer. The greatest discharge that ever passed over the Pedda Lippalam anicut is 7412 cft per second ~~and the length of the surplus channel from the anicut is about 8000 feet.~~ ¹⁰⁵⁰⁰ feet. Throughout this length, banks have been proposed on both sides as detailed below. The top of the new proposed bank is 3 feet above M.W.L.; top width 6 feet side slopes 2:1 on account of the poor nature of the soil. A part of the earth required for the banks will be taken from the sides of the gedda and thus the bottom width of the gedda will be made as per section. The breadth of

*the flood is
accrued at
rare intervals
of very short
duration*

X rain 168' long
H.F.L. 7' on crest
habitable afflux
3'

10900 by 1000
Lug
Long 1000 ft

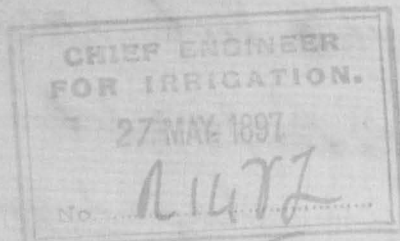
of the gedda between the toes of the ²⁷⁰ slopes of bund is ~~140~~ feet. Fall 4.80 feet in 5000; depth of water 8 feet. Bed width 80 feet; side slopes $1\frac{1}{2}$: 1; with this section the surplus course is capable of carrying 8000 cft i.e. about 656 cft more than the discharge over the anicut

From the anicut to the head of the new proposed right bank the Pedda Lippalam tank bund serves as the right bank of the gedda a leading bank will also be thrown from the tank bund to the head of the proposed bank as shown in the accompanying survey. A cross bund across the gorge from Gundi channel to the surplus channel is necessary to prevent the water from the former to flow into the latter and thus damage the left bank of the surplus channel for which a lump sum is provided in the Estimate.

All works will be carried out as per standard specification.
See accompanying notes of Suburban

J. C. Lawrence
Superintending Engineer
18/10/05

John Inglis
Executive Engineer
Vizagapatam Division



0621
5633/97

Pedda Copalam
River Channel
and Banking Estimate.

18

Inspection Notes of J. B. Lammie Esq.
N. J. C. Superintending Engineer
1st Circle dated the 18th May 1897

This is really the second main branch of the Varaha River, bifurcating at the Pennagola Dam about 2 miles above Rajavaram (not far below the main trunk some 8 miles, southwest of Yellamanchili). About 3 miles below its head and right across the stream is the Pedda Copalam Tank, two vent supply sluice. While the main stream is turned off sharp to the left over a weir 16ft in length into what is called the Pedda Copalam Surplus Channel.

2. About two months ago, the Esq Engineer (then Mr. Inglis) sent in an Estimate amounting to

14 Feb.

11870
to Rs 11870 for extensive banks
9390 feet in length for this
Channel requesting Sanc-
-tion by wire as the Collector
was clamorous for work
to avert the necessity of
starting relief work.

3. As the proposals of the
estimate seemed very
questionable I returned
it for further explanation
and report, which Mr.
Ingles went away without
furnishing (as he very
well might have come
out and spent several
days in the neighbourhood)

4. Meantime the Collector's
demands for work becoming
more urgent I consented
to Mr. Allen's starting the
banks on the understanding
that he would, in spirit the locality and
that the height of the banks
and head of water as
proposed, against them
should be reduced.

5.

28

Full it ~~was~~ 5' high!
If ~~was~~ ^{the} ~~had~~ ^{had} ~~not~~ ^{not} ~~of~~ ^{of} ~~water~~ ^{water}
and had ~~been~~ ^{been} ~~the~~ ^{the} ~~banks~~ ^{banks}
would not ~~have~~ ^{have} ~~been~~ ^{been} ~~so~~ ^{so} ~~low~~ ^{low}

5. Mr. Allen has, nearly
ever since, been occupied
starting relief works and
the banking work was
also started for the above
reasons and has I now
find been carried out
for the greater part of the
original length of 9390 feet
(with a further addition
of 1110 feet). As I originally
suspected (para 3), it is
one of these instances where
banks are more likely to do
harm than good.

6. In fact no extension
of the Right bank from the
Redda Ophaleu Tank
bund is at all required
and the Left should have
terminated at the old
Tank Weir. Below this point,
on those very rare occasions
when a high fresh came
down the river, the water
spread harmlessly about
and escaped through
various

various old Channels from
some of which irrigation
was carried on and where
supply is now cut off by the
banks carried across them.
Other complications have
also arisen: field drainage
into the Surplus Channel
has been cut off and
Service Inams cut to pieces &
deprived of means of
cultivation.

The Gaudi Channel
Surplus which takes off
from the Pedda Obhalam
River Channel near Raygoeram
through a 43 feet weir,
again joins the Surplus
Channel opposite the
Hill in the Right bank.
How this is to be arranged
for does not appear to
have been thought of.
The intention seems to be
to carry the Left bank
right across the Gaudi
Channel! (It had better be left
open).

8. It is to be regretted
that the Sub-Division officer
in carrying out the banks
did not take advantage
of the occasion to realign
and deepen the Channel.
This one would have suf-
-ficed was the obvious
way to procure earth for
the banks. The several winding
depressions could easily have
been united into one broad
Cut. As it was, shallow
pits have been dug all over
the space between the banks,
in a way not likely to
facilitate discharge. In
fact the eddies and sets
against the banks are apt
to be set up and formed
as they are, to a great
extent of very sandy
soil, their chances of
long existence are further
reduced. Some 1000 feet
of Right bank at lower
end not yet started may
be

be omitted altogether.

9. The work ought fairly to be debited to Famine as I should never recommend its execution as an agricultural work, while as the former, it has no doubt fulfilled a useful part and afforded employment to labor, from even so great a distance as Tuni.

In the Right bank Kotha Pallam New H^B Shuice of the Pedda Odipalam River Channel, the bank for 12 yards above and 15 yards below the sluice should be revetted right up from river bed to level of top of platform. Otherwise the bank here which is new and not too substantial will be apt to breach.

A sketch was made
in

in the maistry's Order book.

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Sd/ J. C. Lawrence.
Suptg Engr. B. C. C.

Encls. 7

No. 236 U-2 dated 22nd May 1897
Copy Submitted to
the Chief Engineer for Pri-
-gation with the Estimate
for sanction as a famine
work.

J. C. Lawrence
Suptg Engineer B. C. C.
22/5