

(1) Number of pages _____

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MADRAS RECORD OFFICE.**Government of Madras.***Public Works* **DEPARTMENT.**

G.O. No.	2187	Press
		Mis.
Dated	27-11-	1861.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
5th November 1864.*

No. 111. Read the following letter from Captain J. BEAN, R. E., Officiating Superintending Engineer, 6th Division, to Colonel C. A. ORR, R. E., Secretary to Government, Public Works Department, dated Tanjore, 19th October 1864, No. 1,709 :—

SIR,

1. With reference to Government Order No. 2,390, dated 20th August 1864, paragraph 2, and Memorandum No. 1, dated 1st September 1864, I

Enclosure 1.

have the honor to enclose a list of the breaches which occurred in the rivers of the Trichinopoly and Tanjore Districts, in July last, from the high floods in the Cauvery river, showing in the remark column the cause of each damage. In the list I have included a few works which, though not actual breaches, are required to be carried out, as they provide for the strengthening of the embankments where they have been damaged by the same causes which occasioned the breaches.

	RS.	A.	P.
* Trichinopoly	31,303	0	0
Tanjore	24,596	13	8
† Trichinopoly	34,672	0	0
Tanjore	150	0	0

2. The amounts of estimates sanctioned are shown to be Rupees 55,899-13-8,* and of estimates in hand but not sanctioned Rupees 34,822,† in the aggregate for the two Districts; but as the latter were entered in the list after its preparation was commenced and prior to the receipt of Order No. 2,940, dated 12th October 1864, I did not include them under the first head, though I have since done so on account of their emergency, and with the approval of the Collectors. These two sums will make the aggregate of the estimates sanctioned, as shown in the list, amount to Rupees 90,721-13-8,

but I propose to return the estimate,† which is of largest amount in the list, to the Range Officer for revision, which will reduce the aggregate total by a small amount.

3. Of the three large estimates in the list, I would beg to remark as follows :—The Supervisor in charge of the Woodiarpollam Range, Trichinopoly District, submitted two estimates amounting to Rupees 11,700 and Rupees 5,650, for repairing and strengthening the forty miles of the Coleroon river north bank, under his charge, in portions which had become weak and low. I hesitated to sanction them on account of their large amount, and I have since returned the first for revision, as the bank surrounds dry cultivation and much waste land, and it appears unnecessary to incur such a large expenditure, at present, in perfecting the section of the banks, especially when many surplus sluices are required to be erected. At the same time, however, there are twenty-one villages under these banks, and 730 acres of land were submerged this year, yielding a revenue of 3,600 Rupees, and causing much loss.

4. The latter estimate provides for repairing the banks which surround the cultivated fields lately taken up by the Ryots, under the new Ponair channel irrigation. It is most desirable that this cultivation should be extended, and that the project should be fully developed, considering the very large amount which has been laid out on the Ponair channel and Murythiar river under-tunnel. The cultivators, also, took up much new land from the channel this year and excavated the branches, but when the fields and the seed beds were prepared and much crop planted out, the whole was submerged and the villagers became disheartened. I have ascertained that sixty-three breaches occurred in these ten miles of bank, that 877 acres of land of which 533 were Nunjah were inundated, and that the loss amounted to several thousands of Rupees. I have sanctioned the estimate with the cordial approval of the Collector, and I shall submit estimates for surplus sluices, allowing of drainage into the river, which are very much required, as soon as Government are in a position to sanction the estimate.

5. An estimate of Rupees 4,225 has been sanctioned in the Trichinopoly Range for restoring the south bank of the Coleroon river, from the bridge eastwards to a distance of 1½ miles. The contraction of the water way, many years ago, by the construction of inner banks, thrown up by Colonel Lawford, I believe, has been the cause of the disasters, as they occur yearly with more or less effect. I have selected a line for the new banks, in consultation with Captain

*Proceedings of the Madras Government, Public Works Department,
5th November 1864.*

Palmer, and I shall submit estimates for a few surplus sluices, without which the open mouths of the several channels discharging into the river cause breaches from the backing up of the floods when on a high level.

6. I submit estimates for 153 works, and it will be seen that the largest expenditure occurs in the Trichinopoly District, in the Ranges of Woodiarpolliem and Trichinopoly.

No. 112.

ORDER THEREON, 5th November 1864, No. 3,185.

1. The Government having carefully examined the list of breaches submitted with the letter above recorded, are of opinion that, in many instances, the banks were too low and too weak to resist the action of the flood, and that arrangements should be made for heightening and strengthening them. In some cases, it would seem that openings had been left for the discharge of land water, and that as the flood over-rode the latter, it rushed up these openings, causing considerable damage. In these places, the Government think that self-acting sluices should be constructed to allow the land water to escape as soon as it over-rides the flood water, and to keep the latter out. Wherever a "set" occurs against the bank, a fact which can easily be foreseen, the bank should be strengthened and protected.

2. Captain Bean will be requested to submit a clear report upon the whole course of the Cauvery river, accompanied by plans and sections, showing the state of existing work and the proposed repairs and improvements.

3. With reference to the Superintending Engineer's remarks opposite to the work marginally noted, the Government request that they may be furnished with plans showing the old and new banks, and with a full report of the circumstances which led to the adoption of the latter. Care must be taken, in establishing surplus (self-acting) sluices, that the quantity of water which may have to pass through them is determined, and that sufficient opening is given to carry this water off, as otherwise the bank will be breached from the rear.

4. The north Cauvery and Naut Voical banks should be revetted with stone if practicable.

5. Captain Bean will report in what manner it is proposed to strengthen the work noted in the margin, against a set of the river.

6. The Superintending Engineer's remarks opposite to the work "closing breach and strengthening south bank of Cauvery, &c.," are not sufficiently clear and should be explained.

(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

To the Superintending Engineer, 6th !

Exd. S. T. Augustin.

No. 1709-

Sup: Engr's Office 6th Dec
Tanjore 19th October 1864.

From,

Captain J. Bean R.E.

Offs: Sup: Engineer 6th Dec

To,

Colonel C. A. Orr R.E.

Secretary to Government
P. T. D.

Sir,

Enclosure 1

With reference to Government Order No. 2390 dated 20th August 1864 paragraph 2, and Memorandum No. 1 dated 1st September 1864, I have the honor to enclose a list of the breaches which occurred in the Rivers of the Trichinopoly and Tanjore Districts, in July last, from the high floods in the Cauvery River, showing in the remark column the cause of each damage. In the list, I have included a few works, which, though not actual breaches, are required to be carried out, as they provide for the strengthening of the embankments where they have been damaged by the same causes which occasioned the breaches:

Trichinopoly

Rs 31,303

Tanjore

Rs 24,596-13-8

2 The amounts of Estimates sanctioned are shown to be Rs 55,899-13-8, and

and of Estimates in hand but not sanctioned Rs 34,822. "... in the aggregate for the two Districts, but as the latter were entered in the list after its preparation was commenced and prior to the receipt of Order N^o 2940 dated 12th October 1864, I did not include them under the first head, though I have since done so on account of their emergency, and with the approval of the Collectors.

These two sums will make the aggregate of the Estimates sanctioned, as shown in the list, amount to Rs 90,721.13.8, but I propose to return the Estimate which is of largest amount in the list to the range officer for revision which will reduce the aggregate total by a small amount.

3 ... Of the three large Estimates in the list, I would beg to remark as follows. The Supervisor in charge of the Woodiarpollim range Trichinopoly District submitted two Estimates, amounting to Rs 11,700 and Rs 5650, for repairing and strengthening the 40 Miles of the Coleroon River north bank, under his charge, in portions which had become weak and low. I hesitated to sanction them on

Trichinopoly
Rs 34,672
Tanjore
Rs 150

Rs 11,700

57
on account of their large amount, and I have since returned the first for revision, as the bank surrounds dry cultivation and much waste land and it appears unnecessary to incur such a large expenditure, at present, in perfecting the section of the banks, especially when many surplus sluices are required to be erected. At the same time, however, there are 21 villages under these banks, and 730 acres of land were submerged, this year, yielding a revenue of 3,600 Rupees, and causing much loss.

4 The latter Estimate provides for repairing the banks which surround the cultivated fields lately taken up by the ryots under the new Ponairry Channel irrigation. It is most desirable that this cultivation should be extended, and that the project should be fully developed, considering the very large amount which has been laid out on the Ponairry Channel and Murythar River under tunnel. The cultivators, also, took up much new land from the Channel this year and excavated the branches, but when the fields and the seed beds were prepared and much crop planted

planted out, the whole was submerged and the villagers became disheartened. I have ascertained that 63 breaches occurred in these 10 miles of bank, that 877 acres of land of which 533 were nunjah were inundated, and that the loss amounted to several thousands of Rupees. I have sanctioned the Estimate with the cordial approval of the Collector, and I shall submit Estimates for Surplus Sluices, allowing of drainage into the River, which are very much required, as soon as Government are in a position to sanction the Estimate.

5 An Estimate of Rs 4225 has been sanctioned in the Trichinopoly range for restoring the South bank of the Coleroon River, from the bridge eastwards to a distance of $1\frac{1}{2}$ miles.

The contraction of the water way, many years ago, by the construction of inner banks, thrown up by Colonel Lawford, I believe, has been the cause of the disasters, as they occur yearly with more or less effect. I have selected a line for the new banks, in consultation with Captain Palmer, and I shall submit Estimates for a few surplus Sluices

Sluices, without which the open mouths of the several channels discharging into the River cause breaches from the backing up of the floods when on a high level.

6 I submit Estimates for 158 works and it will be seen that the largest expenditure occurs in the Trichinopoly District in the ranges of Woodiarpolliem and Trichinopoly.

I have the honor to be
Sir,

Your most obedient servant

Reverend Capt R E
Offg: Supt: Engineer 6th Div

List

2185

Public Works Department

Proceedings of the Madras Government

Under date the 5th November 1864.

Read the following letter

From The Superintending Engineer

6th Division

Forwarding a list of breaches occurred at the Rivers of the Trichy and Tanjore Districts in July last from the high floods in the Canara River called for in S. O. N^o 2590 dated 20th Augt 1864 -

H. E. 19 October 1864 N^o 1709

The Government having carefully examined the list of breaches submitted with the letter above recorded ~~it~~ one of opinion that, in many instances, the banks were too low and too near to prevent the action of the flood, and that arrangements should be made

1864
Madras
The Superintending Engineer
6th Division

To the Secretary of Govt
P. R. 2

Recd 19th
Recd 22nd

1709

Recorded

Forwarding a list of breaches occurred in the Rivers of the Trichy and Tanjore Districts in July last from the high floods in the Canara River called for in S. O. N^o 2590 dated 20th Augt 1864

2557 6647864 M. 1041042

for heightening and
strengthening them. In
some cases it would
seem that openings had
been left for the discharge
of land water, and that
as the flood overrode
the latter, it rushed
up these openings, causing
considerable damage.
In these places, the
Govt. think that self
acting sluices should be
constructed to allow the
land water to escape as
soon as it overrides the
flood water, and to keep
the latter out. Whenever

a "set" occurs against the
bank, a fact which can
easily be foreseen, the
bank should be strength-
ened and protected.

2. Captain Beam
will be requested to submit
a clear report upon the
whole course of the
Cauvery river, accompanied
by plans and sections
showing the state of ex-
isting work and the
proposed repairs and
improvements.

3. With reference to the
pipe bridge remarks of
proceeding to the work
originally noted, the

South bank of Coleroon in-
lined by the fishes on the
24th July 1864

I ^{do} request that they
may be furnished with
plans showing the old
and new banks, and
with a full report of
the circumstances which
led to the adoption

of the latter. One must
be taken in establishing

(self-acting) surplus sluices, that the
quantity of water which

may have to pass thro
them is determined, and

that sufficient opening
is given to carry the

water off, or otherwise the
bank will be breached.

Causing North bank, east
and west of beach in
Thummaraja Samudram.

from the river.

4 The ~~bank~~ ^{bank} ~~at~~
North Convery and
North Vical banks
should be revetted with
stone of practical

5 Captain Beem
will report in what
manner it is proposed to
strengthen the work noted
in the margin against
a set of the river.

6 - The Superint^d
remarks opposite to the
work "closing beach &
strengthening South bank
of Convery &c" are not
sufficiently clear and
should

2174
7th 1874 Dpto
P^{ro} of Govt for
Dist.

No 3185

7th no: of the Algot
Df 5 Avar/bh
P^{ro} Oct 74/85

2
Letter from the
Supg. Enr. to D.
Submitting a list of
the breaches which
occurred in the rivers
of the Trichinopoly &
Tanjore D^{is} in July
last & stating
the cause of each
damage.

No III - 112