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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Revenue DEPARTMENT

G.O. No. / B.P. No:	1599	Press. / Mis.
Dated 29.6.1878		197 .

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Archives 1—10,006—19-4-79.

1599

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

11th June 1878, No. 479 I.

Irrigation.

Account.

Read the following paper :—

No. 28. Endorsement of the Chief Engineer for Irrigation, dated Ootacamund, 6th June 1878, No. 157 I.

From J. D. GRANT, Esq., Officiating District Engineer, Tinnevelly, to the Chief Engineer for Irrigation, dated Palamcottah, 29th May 1878, No. 33.

I HAVE the honor to forward to you for early sanction a revised estimate of Rupees 21,695 for constructing a head-sluice to the Tinnevelly channel and for the necessary flood bank, of which sum Rupees 16,520 has been already sanctioned, leaving a sum of Rupees 5,175 to be now provided for.

One estimate.
Two plans.
One level section.
One tracing.

2. In preparing the estimate of Rupees 16,520 mentioned above M.F.L. was taken at 147·75 at the site of the head-sluice, and the works were designed accordingly, but in December 1877 the M.F.L. recorded was 149·83, and the present estimate provides for altering the works to suit this height of flood.

It is much to be regretted that these constant alterations are required, but it seems impossible to arrive at the truth as to flood levels, however much care is used in the inquiry ; now however there can be little doubt we have correct information as to the height of two floods every where admitted to be without precedent.

The proposed alterations are as follows :—

3. *Head-sluice.*—Here M.F.L. as formerly taken was 147·75, but in December it rose to 149·83 or 2·08 above our calculated maximum; to meet this the estimate provides for raising the parapets and wing walls 2 feet 3 inches and for building two curved water-wings on the up-stream side to give support to the heightened wing walls of the sluice by keeping back the earth. It is not proposed to raise the screw platform, as it would involve the provision of new screws, and as the shutters would probably be shut before the flood reached the platform, it does not seem material if 2 feet of water stand on the platform. The difficulty of providing steps to reach the platform has been got over by the use of an iron ladder.

The total cost of the alterations to the head-sluice is Rupees 7[illegible]5.

4. *Flood Bank.*—The top level of the portion of the bank running parallel to the river was formerly allowed 150·75 at the head-sluice, sloping up to 152·12 at 2,270 feet from the head-sluice, M.F.L. being assumed 3 feet below it; as stated however M.F.L. rose to 149·83 at the head-sluice or 2·08 above the calculated flood

and it is now proposed to have the top of the flood bank at 153·00 at the head-sluice (3·17 feet above M.F.L.) sloping up to 155·00 at 2,270 feet from the head-sluice where M.F.L. in December was recorded as 151·65.

5. From this point (2,270 feet from the head-sluice) the bank runs at right angles to the river and its top level was originally placed throughout at 152·12, being 3·00 above calculated M.F.L.

In December the M.F.L. recorded was 151·65, and it is now proposed to raise the top of the bank to 153·00* for the portion from the river up to Suttamally village.

* A mistake: is to be 155·00—*vide* section.
J. M.

The proposed alteration to the bank will cost Rupees 3,660, a great portion of the earth required having to come a long distance from spoil heaps in the fields.

6. The raising of the bank involves the lengthening of three culverts at a cost of Rupees 60 and the provision of two new ones to cost Rupees 250.

There is also an item of Rupee 450 for compensation for the extra land required for the bank owing to its being widened.

7. In addition to the sum of Rupees 5,175 now requiring sanction from original fund, an emergent estimate of Rupees 2,730 will be locally sanctioned for closing the breaches in the bank up to its former top level.

8. The new work now provided is necessary, and I would feel obliged by the estimate being sanctioned as early as possible to permit of work being put in hand.

SUBMITTED to Government.

With his letter the District Engineer transmits a revised estimate of Rs. 21,695 for the Tinnevelly channel head-sluice and its connected flood-bank to allow of alterations found requisite owing to the height of the flood of December 1877 in the Tambrapoorney having exceeded by 2·68 feet the supposed maximum flood level with reference to which the sluice and its connected works were constructed. It will be seen from G.O., No. 1,042, of the 26th April 1876, that one alteration of the arrangements has already been made involving an increased cost of Rupees 5,420, the original design for the works having been estimated to cost Rupees 11,100. In the revision of 1876 the greater part of the increase was due to the alteration of the flood bank and now again only Rupees 755 are required for altering the head-sluice, and the rest for raising and extending the flood-bank, including a small item for culverts.

2. The work sanctioned in 1876 having been carried out, sanction to a revised estimate is not required, and the sanction should be given for alterations to the existing works.

3. It is much to be regretted that the supposed maximum flood level in the Tambrapoorney was so inaccurately ascertained in the first instance. Not only will the flood-bank be less secure than would have been the case had it been made of a proper height at first, but it will be seen from paragraph 7 of the District Engineer's letter that Rupees 2,730 have to be spent in the repair of damage. All that was practicable was done in this office to ensure a proper determination of flood levels in the Tambrapoorney in connection with this and other head-sluices, and a note on the plan of the Tinnevelly channel head-sluice shows that the inquiries made led to the conclusion that the highest flood on record occurred between the years 1828 and 1832.

4. It would not be a good plan to widen the embankment on both sides. The work will be more stable if widened only on the up-stream side, and no doubt the roadway along it can easily be adjusted at the two ends so as to allow of all but a few yards being so treated.

5. It is recommended that sanction be given as follows:—

ORDINARY AGRICULTURAL.

IRRIGATION.

Original Works.

Tambrapoorney River Irrigation—Suttamalli Section.

Alerations to Tinnevelly Channel head-sluice and connected flood bank.

			Rs.
			755
Head-sluice		450	
Flood-Bank—			
Compensation		3,660	
Embankment		310	
			4,420
Culverts			
	Total ...		5,175

6. The balance of the reserve at the disposal of Government is so small that no allotment can be made therefrom, and the District Engineer must appropriate funds from the M.N.W. District Grant. Every effort should be made to reduce the rate, 4½ Annas, for the work on the return bank. It is mentioned in District Engineer's paragraph 5 that the earth will have to come a long distance from spoil heaps in the fields, but if so its removal will benefit the owners of the fields, and they may be ready to take the work at a more moderate rate. If not it should be seen whether it would not be cheaper to take up land for the purpose of obtaining earth.

(Signed) JOHN MULLINS, Lt.-Col., R.E.,
Chief Engineer for Irrigation.

No. 29. ORDER THEREON, 11th June 1878, No. 479 I.

THE estimate of Rupees 5,175 for alterations to the Tinnevelly channel head-sluice and flood-bank is sanctioned.

2. This sanction is registered as No. 85 I of 1878-79.

(True Extract.)

(Signed) JOHN MULLINS, Lt.-Col., R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

(True Copy.)

Major, R.E.,
Under Secy. to Govt., P.W.D.,
Irrigation Branch.

To the District Engineer, Tinnevelly.
" Collector of Tinnevelly.
" Chief Engineer for Irrigation.
" Examiner of Public Works Accounts.
" Revenue Department.

Exd. T. D. Ry[illegible]
11 Spare Copies

Accounts 1878 Dept
No 27/84

IRRIGATION.
ACCOUNT.

Govt. of [1878] Madras.

PUBLIC WORKS.

To

THE DISTRICT ENGINEER,
TINNEVELLY.
&c., &c., &c.

Dated June 11th.

Issued

Encl. 29 Encl.

G. O., 11th June 1878, No. 479 L.

JUNE.

Nos. 28-29.

Dis (Pur)

No 1599
Communicated to the
Board's Accounts

29 June 1878

Tinnevelly Channel Head Sluices and Flood-bank.—The estimate of Rupees 5,175 for the—— sanctioned.

Vikrudu