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MADRAS RECORD OFFICE

GOVERNMENT OF MADRAS

Revenue DEPARTMENT

G.O. No.	1890	Press
B.P. No.		Mis. ☒
Dated	11. 8. 1876	196

Not to be folded or roughly handled

26

Read the following:—

No. 97-W.

Note by the Chief Engineer for Irrigation.

No. 350.

The Officiating District Engineer, Bellary, forwards, with his letter marginally noted, estimate in connection with the Tadpatry upper channel tank situated in the Tadpatry Taluq, Ghooty Range.

2. The nature of the work proposed for execution and the heads of account to which it is chargeable are as follow:—

Ordinary Agricultural.				Rs.
Constructing a masonry weir.	Original Works	..	..	707
Do. a masonry drop.	Do.	..	..	123
Total Original Works				830
Diverting the channel.	Repairs...	..	..	285
Grand Total				1,115

3. The following particulars of this work are recorded:—

Ayacut area	...	...	...	...	Acres	111
Assessment	...	...	...	...	Rupees	566
Average revenue	...	...	...	...	"	645
Highest do.	...	...	...	...	"	659
Expenditure during the previous four years	...	...	...	...	"	155

The weir is to provide for the cross drainage of the land above the channel.

The area of the catchment basin of the stream, for the passage of which provision is made, is not given; the maximum flood supply is calculated at 435.78 cubic feet per second, for discharging which, as surplus, there is to be an escape forty-four feet in length which is under construction; the stream is the chief outlet for the drainage of the flood-water which is stated to accumulate near the Railway embankment not far from Tadpatry, the weir has one sand vent. A masonry drop is also under construction. The District Engineer reports that the soil is soft, that the course of the channel is being altered so as to avoid the present low and bad ground, as well as the breached portion of the channel, and that as the emergency of the case would admit of no delay the works are being carried out in anticipation of sanction.

4. It is apparent that the necessity for this work has arisen from the interference of the Railway embankment with the drainage of the country, for the District Engineer explains that flood-water which formerly was spread over the land and entered the channel at different points is now intercepted by the embankment and forced to concentrate itself at one outlet. The case illustrates the necessity for attention to two rules in designing the Railways. First, that the natural drainage should be interfered with as little as possible; and, second, that if, the interests of the Railway, diversion of drainage is necessary or desirable, it should never be carried out without full preliminary inquiry in conjunction with the Local Public Works Officers into the effects proximate or remote of such diversion and the proper assessment against the Railway Company of the cost of changes in works of irrigation which may thereby be rendered necessary.

5. The work having been undertaken, and urgent, the sanction required is merely formal, but it is necessary to point out that there seems to be evidence that the

waterway of the jungle stream near its junction with the channel is insufficient to carry the flood discharge, seeing that it breached its banks in two places.

The breaches are to be closed and seemingly the water surface at flood level raised by the channel weir. It is probable therefore that the jungle stream approach to the weir will require widening.

If other circumstances were not unfavorable, it would have been better to have used the upper breach and the outlet from it as the permanent line of drainage and to have blocked up the old bed and lower breach since the line of the first is more direct.

6. The District Engineer should give attention to the following points:—

(1.)—The wing walls of the weir are only $1\frac{1}{2}$ feet above H. W. M. which is apparently intended to represent M. W. L., and this is a small margin. It would seem to be better to allow another foot on the line of the top of the embankments. The cost of the few cubic feet of masonry will be nominal and the addition to safety considerable.

(2.)—The length of the surplus weir may possibly be adequate, but what evidence there is, is against this being the case. Had the area of the drainage basin been given, a proper estimate of discharge might have been made, as it is without information as to the normal flood depth in the jungle stream, apart from the raising of the water level by the flood banks, it is impracticable to make any reliable calculation. The depth so modified is six feet, and if the normal depth be four and a half feet which seems not an excessive supposition, the 45 feet length of weir would be just about half what would be necessary.

(3.)—The section of the masonry drop shows no wing walls, and these are apparently essential.

(4.)—The embankments should be brought to a minimum height throughout the length affected of $2\frac{1}{2}$ feet above M. W. L., which again is supposed to be $2\frac{1}{2}$ feet above F. S. L. in channel.

OOTACAMUND,
14th July 1876.

(Signed) A. DEC. SCOTT, Major, R.E.,
Dy. Chief Engineer for Irrigation,
for Chief Engineer for Irrigation.

To the Secretary to Government, Public Works Department.

No. 351.

ORDER THEREON, 21st July 1876, No. 1,847.

IRRIGATION, No. 37.		Account.	
TADPATRI		ER CHANNEL.	
Irrigation.		Agricultural.	
1.	Constructing a masonry weir	Original Works	707
2.	Do. a masonry drop	Do.	123
		Total Original Works	830
3.	Diverting the channel. Re		285
		Grand Total	1,115

The cost of the original works will be met from the District grant for Minor New Works.

2. This sanction has been registered as No. 69-I. of 1876-77.

3. These Proceedings will be communicated to the Consulting Engineer for Railways, with a view to its being ascertained whether there is any reason against the debit to the Railway of the cost of these improvements and repairs.

(True Extract.)

[Signature] Colonel,
Ofg. Under Secy. to Govt., P.W.D.

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

Exd. W. H. French,
Spare Copies

No 3209
Revenue 1875 Department
Govt. of 1876 Madras.
PUBLIC WORKS.

26

THE DISTRICT ENGINEER,
BELLARY.
&c. &c. &c.

Dated July 21st.

Issued

Recd. 7 August 1876

Q. O. 21st July 1876, No. 1,847.

JULY.
Nos. 350-351.

Mr. Messrs

Tadpatry Upper Channel, Bellary District.
— Estimate for certain works to the — sanctioned, and a copy of the Proceedings communicated to the Consulting Engineer for Railways with a view to its being ascertained whether there is any reason against the debit to the Railway of the cost of improvements, &c.

No 1870

2nd July 1876

11 State Engineering Office & Bellary

MADRAS RECORD OFFICE

GOVERNMENT OF MADRAS