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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No. <i>24/6</i>	Press <i>Rigmal</i>
~~B.P.~~ No.	~~Mis.~~
Dated <i>23-8-</i>	<i>1875</i>
	<i>-195-</i>

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
23rd August 1875.*

Read the following:—

No. 932.

No. 383. *Note by the Chief Engineer for Irrigation.*

THE return of tanks in the Madura District affecting the South Indian Railway has been prepared as accurately as circumstances would permit, but it will probably be considerably modified when the tanks come to be examined in detail. The next half-yearly return should be corrected as far as possible.

2. The District Engineer mentions in column 13 that the areas and capacities of the tanks as shown are not trustworthy, and he proposes to contour the several reservoirs. This is not necessary in connection with the particular object in view, viz., making the tanks safe, but in some cases contours may be needed in order to see what the storage is, and what is necessary for the lands which are or should be irrigated. The units of measurement in column 12 have not been noted. It is usual to express tank areas in square yards and capacities in cubic yards, and the latter may conveniently be shown in millions of cubic yards to three places of decimals. The capacity of the Vadakary tank is put down as 354.452 millions of something. It is improbable that cubic yards are intended, as there is, it is believed, no reservoir in Southern India of such a size, while if cubic feet be intended the storage would be only 3,400 cubic yards per acre of the 3,864 acres cultivated.

3. With regard to the remark in the last column, intimating that the District Engineer has felt himself obliged to use one of the three co-efficients for Ryves' formula mentioned in this Office Circular No. 61, and that he believes the lowest is too high, it may be noticed, first, that the Circular expressly mentions that "these values of c (the co-efficient) are given as a general guide for the use of those who are unable to make a suitable determination of value for themselves," and, it is added, that "it is hoped, that ere long many of the officers of the department will collect such data for the districts in which they are serving as will enable much more correct values of c for different parts of the country to be determined." Clearly, therefore, it is expected that the District Engineer will do his best to make an intelligent use of such local circumstances as may be ascertainable. Secondly, it is very desirable that opinions as to the sufficiency or otherwise of particular co-efficients should be based on actual discharges from basins of known extent after remarkably heavy falls of rain. The undersigned has made several such calculations, and, as at present informed, he thinks that the general guide given in the Circular is not materially wrong, though he is quite prepared to find when data become available in greater abundance that Ryves' formula gives too high a discharge for small areas, and possibly too low a discharge from large basins.

OOTACAMUND,
18th August 1875.

(Signed) JOHN MULLINS, Lieut.-Colonel, R.E.,
Chief Engineer for Irrigation.

No. 384.

ORDER THEREON, 23rd August 1875, No. 2,416.

IRRIGATION, No. 23D.

RECORDED with the observation
that attention should be given to the
remarks in the foregoing Note.

(True Extract.)

Major-General, R.E.,
Secretary to Government.

To the District Engineer, Madura.
" Chief Engineer for Irrigation.
" Consulting Engineer for Railways.
Exd. S. T. Austin.
Spare Copies

Note by the Chief Engineer for
Irrigation.

ues 3.

The return of tanks in the Madras District affecting the South Indian Railway has been prepared as accurately as circumstances would permit, but it will probably be considerably modified when the tanks come to be examined in details. The next half yearly return should be corrected as far as possible.

2. The District Engineer mentions in Column 13 that the areas and capacities of the tanks as shown are not trustworthy and he proposes to contour the several reservoirs. This is not necessary in connection with the particular object in view, viz, making the tanks safe but in some cases contours may be needed in order to see what the storage is and what is necessary for the lands which are or should be irrigated. The units of measurement in Column 12

have not been noted. It is usual to express tank areas in square yards, and capacities in cubic yards and the latter may conveniently be shown in billions of cubic yards to 3 places of decimals. The capacity of the Vadavara Tank is put down as 354.452 millions of something. It is improbable that cubic yards are intended as there is it is believed, no reservoir in Southern India of such a size, while if cubic feet be intended the storage would be only 3400 cubic yards per acre of the 3864 acres cultivated.

3. With regard to the remark in the last column intimating that the District Engineer has felt himself obliged to use one of the three coefficients for Ryves' formula mentioned in this office Circular No. 61 and that he believes the lowest is too high, it may be noticed first that the Circular expressly mentions that "these values of C (the coefficient) are given as

21-2
a general guide for the use of those who are unable to make a suitable determination of value for themselves" and it is added that "it is hoped that ere long many of the officers of the Department will collect such data for the districts in which they are serving, as will enable much more correct values of C for different parts of the country to be determined." Clearly, therefore it is expected that the District Engineer will do his best to make an intelligent use of such local circumstances as may be ascertainable. Secondly, it is very desirable that opinions as to the sufficiency or otherwise of particular coefficients should be based on actual discharges from basins of known extent, after remarkably heavy falls of rain. The undersigned has made several such calculations and as at present informed

P. W. 1875 Dept.
No. 5478.

From

The Chief Engr.
for Design.

Dated 18th Aug. 1875.
Recd. 25th — 1875.

S. S. No. 922.

Note on the
return of tanks affec-
ting the S. S. Rep. in
the Madura Dist.

S. B. 24/6. 20-8-75.

No. 383

No 2416 S.H.D. 4

Proceedings of the Madras Govt.

Under date the 23rd August 1875

Read the following:-

From,

The Chief Engineer
for Design.

(N. E. No. 932 of 12th Aug. 1875)

Recorded with the
observation that atten-
-tion should be given
to the remarks in the
foregoing note.

M. 19/8

S. B. Madura 6

Chgo for Engr. 35

Chgo for Engr. 122

X B. McLeaves

Sc Inspd - 7-9-75

Vol. 52/8
No. 1. of 1875 Madras.
PUBLIC WORKS.

To
The Engineer.
Madras.

Dated

Issued

By

G. O. 21st Aug. 1875

No. 383-384

Return of tants affecting
the S. & D. in the Madras
Dt. - The - recorded with
the observation that attention
be given to the remarks in
the note by the Chief Engineer
for
Inspection.