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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Revenue DEPARTMENT

G.O. No. / B.P. No:	3029	Press. / Mis.
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GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

23rd November 1878, No. 962 I.

Irrigation.

Read the following papers :—

No. 122. Endorsement of the Acting Chief Engineer for Irrigation, dated 2nd November 1878, No. 316 I.

GOOTY RANGE, BELLARY DISTRICT.

RETURN of Tanks affecting Lines of Railway for the Half-year ended 30th June 1878, prepared with reference to G.O., No. 3,210, dated 13th November 1874.

District.	Railway Lines.	Point at which Surplus crosses.	Name of Tank.	Area of Catchment.	Estimated Maximum Flood Discharge, Foot in Second.	Intended Maximum Depth of Water over Crest of Surplus Weir.	Length of Surplus Weir required.	Length of existing Calingulah and Surplus Weir.		Additional length of Surplus Weir required.	Height of Top of Bund above		Appropriate.		Special Remarks.	Range.
								Total.	Effective.		Weir Crest.	Top of Dam Stone.	Area of Tank.	Capacity when full.		
		MS. CHS.		S. MS.		FT. IN.	FT.	FT.	FT.	FT.	FT.	FT.				
Bellary.	North-west Line.	257 49·0	Basoopully tank (terminal tank) C = 400.	16	2,540	2 6	185	194	194	..	6·6	None.	4,860,000	29,160,000	This tank is now in good order; new weir built; work fully completed.	Area of tank ascertained by contour.
		257 0	Oobachcrla. C = 400.	10	1,856	3 0	102	50	50	52	6·00	None.	2,700,000	13,500,000	This tank has not hitherto been taken up. It stands at the head of the group. Estimate has been put by the Range Officer, but is under reference, will be disposed of shortly.	Do. do.
		308 55·7	Adoni tank C = 550.	2	869	3 0	47	47	47	..	7·09	..	2,560,200	15,361,260	This tank is in excellent condition.	Area of catchment basin ascertained by careful examination to be only two square miles. Area of tank ascertained by contour.
		309 42·8	Narsapur private tank (terminal tank) C = 550.	2	869	1 6	135	15	15	120	3·2	..	62,794	251,176	The tanks are very small, mere ponds in reality; do not affect anything, and the tanks were never known to surplus.	Banks should probably be raised to 50 + weir crest.
		.. ..	Narsapur Government tank C = 550.	1½	720	1 6	111	20	20	91	3·37	..	65,496	327,480	The Collector reports that the needful improvements to the private tank has been made.	
		310 42·4	Vengal Coontah C = 550.	¼	214	1 0	60	37	37	23	2·23	..	199,998	599,994	Private tank, reported to have been attended to by the Collector.	
		.. ..	Iswee large tank, terminal tank, C = 550.	2½	1,012	2 0	102	48	48	54	4·25	..	799,992	3,199,968	Estimate under preparation.	Papers in hand.
		.. ..	Balladavera tank ..	¼	214	3 0	11½	2½	2½	9	6·25	..	299,997	899,971	Private tank. The weir is said to have been extended.	

COTTUR,
20th July 1878.

$$N.B.-D = C\sqrt[3]{M^2} \qquad L = \frac{D}{3{\cdot}5\sqrt[3]{d}}$$

(Signed) J. W. RUNDALL,
District Engineer, Bellary.

BELLARY DISTRICT, PENUCONDAH RANGE.

Return of Tanks affecting Lines of Railway for the Half-year ended 30th June 1878, prepared with reference to G.O., No. 3,210, dated 13th November 1874.

Point at which Surplus crosses Railways.	Names of Tanks.	Area of Catchment Basin.	Flood Discharge into Tank per Second.		Levels with reference to Datum.						Present and proposed discharge of Calingulahs, Weirs, and Escapes at M.T.L. per Second.	Surface Area of Tank at F.T.L.	Contents of Tank.	Special Remarks.	General Remarks.
			Catchment.	Channels.	Water Surface.		Calingulahs, Weirs, Escapes.			Tank Bund.					
					F.T.L.	M.T.L.	Work.	Length.	Level.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	(G.O. No. 883 of 1876.)	SQ. MS.	C. FEET.	C. FEET.	FEET.	FEET.		FEET.	FEET.	FEET.	C. FEET.	MILLIONS OF SQ. FT.	MILLIONS C. FEET.		
Not known.	Bookapatam tank.	560	38,215	..	50·00	53·00	Weirs.	2,189 1,567	50·00	56·00	38,215 11,690	167·270	627·264	Government. One of the largest tanks in the district; the bund is built across the Chitravati river and between hills. The bund is revetted in front throughout; a portion of rear slope is also revetted. The transverse section of bund is strong. The extra weir required can be constructed at the east of bund. Estimates are under preparation.	C in column 4 = 562·5; country undulating and portions of gathering grounds amongst hills. C in column 12 = ·628. The greatest height to which water has been known to rise above crest of weir is 3½ feet which was in October 1874. Since then 150 feet of additional weir has been added.
Not known.	Dharmavaram tank.	740	46,018	..	50·00	53·00	Weirs.	2,636 1,492	50·00	56·00	46,019 26,047	125·453	395·928	Government. The bund is built across the Chitravati river, which is joined by the Venkapairu, 4 miles below the Bookapatam tank. It is the terminal of a large number of tanks including Bookapatam tank that surpluses into Chitravati river. The transverse section of bund is strong. Both front and rear slopes are revetted. A repair estimate has been submitted for this tank, and one is under preparation for additional length of weir.	C in column 4 = 562·5; country undulating and portions of gathering grounds amongst hills. C in column 12 = ·628. The greatest height to which water has been known to rise over weir crest is 3 feet, which was in October 1874, when one of the weirs breached; it was since repaired and extended by 30 feet.

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BELLARY DISTRICT, PENUKONDAH RANGE—*continued.*

Return of Tanks affecting Lines of Railway for the Half-year ended 30th June 1878, &c.—*continued.*

Point at which Supply crosses Railways.	Names of Tanks.	Area of Catchment Basin.	Flood Discharge into Tank per Second.		Levels with reference to Datum.								Present and proposed discharge of Calingulahs, Weirs, and Escapes at M.T.L. per Second.	Surface Area of Tank at F.T.L.	Contents of Tank.	General Remarks.
			Catchment.	Channels.	Water Surface.	F.T.L.	M.T.L.	Calingulahs, Weirs, Escapes.				Tank Bund.				
								Works.	Length.	Levels.	Tank Bund.					
1	2	3	4	5	6	7	8	9		10	11		12	13	14	15	16
		Sq. Mls.	C. Feet.	C. Feet.	Feet.	Feet.		Feet.		Feet.	Feet.		C. Feet.	Millions of Sq. Ft.	Millions C. Feet.	
Not known.	(G. O., No. 883 of 1876.) Gotloor tank	180	17,933	..	50·05	56·00	Weirs. 1,027 53 800 50·00				69·00		17,933 3,966	25·300	63·306	Government. The bund is built across the Palaty puntlah. The transverse section of bund is good, but the earth used is of inferior quality, being composed of black cotton soil and sandy earth. The tank was resumed 1876, in case, it should them it breached twice, it has an almost constant supply of water. The revetment has been rebuilt with gravel and puddle backings. The body walls of north and south weirs have been lowered by 3 feet, but the north calingulah will be restored when the bund is thoroughly settled. An estimate is being prepared to put this tank into efficient order.

* NOTE.—The following abbreviations are used in this return :—

B.—Bund or embankment. C.—Calingulah with dam stones. W.—Weir of masonry with flush crest. E.—Natural escape, i.e., escape at ground level with or without rough stone protection. S.—Sluice. F.T.L.—Full Tank level. M.T.L.—Maximum tank level. T.—Tank or reservoir.
D.—Dam stone. G.—Gathering ground or catchment basin. Ch.—Channel. C.C.—Cross of calingulah body wall. B.C.—Bund top or crest. W.C.—Crest of weir. E.C.—Crest of escape. C.S.—Sluice sill. S.W.—Sluice-wing wall. S.Ch.—Supply channel. S.P.—Pot sluice. W.Ch.—Surplus or waste channel. S.M.—Stone in mortar or stone masonry. Ct.—Concrete work. P.—Puddled clay work.
S.F.—Stone flooring or apron. S.R.—Stone revetment. Bk.—Brick in mortar. C.S.M.—Cut stone work. *Puddling.*—E.X.—Excavation. E.M.—Embanking.

The levels given in columns 10 and 11 refer to the top of a dam stone; the crest of the calingulah, weir, or escape, the mean level of the top of the bund. The entries in small figures refer to the present conditions of the tank, its calingulahs, weirs, &c.; those in large figures exhibit the conditions proposed.

The absence of large figures implies that no alterations are suggested.

The entries in columns 13 to 14 to be shown to three places of decimals, *e.g.*, column 13-0·043 (one acre) or 4·356 (100 acres).

THE returns of tanks affecting the North-west Line of the Madras Railway in the Gooty and Penukonda Ranges forwarded by the District Engineer, Bellary, for the half-year ended 30th June 1878, are submitted for the information of Government.

Gooty Range.—The hydraulic and other particulars of the tanks in the current half-year's return do not correspond with the particulars furnished in the return printed with G.O., No. 3,251, dated 1st December 1876. The difference in the details given in these returns is owing to considerable revision having been made based on recent and more reliable data; it is therefore necessary to print the modified return in supersession of that printed as an accompaniment to the Government order quoted above.

The current return contains an additional tank, the number of tanks reported on are eight, of which five are Government and three private tanks; of the former, two are stated to be in good order, estimates for the repairs and improvements of one tank have been submitted to the Government for sanction, the estimates, &c., for the repairs of another tank are under preparation, and the remaining tank is a very insignificant one, and although the bund is low it is not considered necessary to raise it as the supply is so limited that the tank has never been known to surplus; of the latter, viz., the three private tanks, one is a mere pond which it is stated has had its bund raised and weir extended, the weir of another tank has also been lengthened, and it is stated that the Collector has taken the necessary steps to have the remaining tank made safe.

Penukonda Range.—The number of tanks reported on in this range are three, of which the Bookapatam tank needs an extra weir, for which it is stated that an estimate is under preparation; but this remark has been made in several previous returns without apparently any steps being taken to supply the want. If the work is considered necessary it should be constructed at once and the tank made safe. An estimate for the repairs of the Dharmavaram tank has been submitted for sanction, and an estimate for the construction of an additional weir in the Gotloor tank is under preparation.

The District Engineer's attention is drawn to this Office Circular No. 3-C of 9th February 1877, which prescribes that an index showing the progress of repairs of tanks in the return should be prepared in the form appended to the circular quoted above and furnished to this office.

(Signed) J. O. HASTED, Lt.-Col., R.E.,
Ag. Chief Engineer for Irrigation.

No. 123. ORDER THEREON, 23rd November 1878, No. 962 I.

ORDERED to be recorded.

2. The attention of the Superintending Engineer, Second Circle, is called to the remarks of the Chief Engineer for Irrigation. The punctual submission of the half-yearly return with index should be insisted on.

(True Extract.)

Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, Second C
" Chief Engineer for Irrigation.
" Consulting Engineer for Railways.
" Revenue Department.

Exd. E. C. Shunker.
Spare Copies

Revenue Dept
No. 3252

IRRIGATION.

Govt. of (1878) Madras.

PUBLIC WORKS.

To

THE SUPERINTENDING ENGINEER,
SECOND CIRCLE,
&c., &c., &c.

Dated November 23rd.

Rec'd. 11 Dec^r. Encl.

G. O., 23rd November 1878, No. 962 I.

NOVEMBER.

Nos. 122 123.

No. 3029
Communicated to the Board of Revenue.
13: Dec/78.

Return of Tanks affecting the North-west Line of the Madras Railway in the Gooty and Penukonda Ranges for the half-year ended 30th June 1878, recorded.

17 Feb. Board's Proc. Revenue Dept. 14 Feb.