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MADRAS RECORD OFFICE.

Government of Madras.
Public Works **DEPARTMENT.**

G.O. No.	1219 (9)	Press Mis.
Dated	9-4-	1877.

Not to be folded or roughly handled

11

*Proceedings of the Madras Government, Public Works Department,
9th April 1877. No. 1,219.*

Read the following :—

No. 161—W.

No. 228. *Note by the Chief Engineer for Irrigation.*

THE following estimates from the No. 3 or Chingleput Range are forwarded by the Superintending Engineer, Chingleput, with his letter marginally noted :—

No. 3,982, dated 16th February 1877.

Taluq.	Village.	Work.	Amount.
Chingleput	Senkunram ..	S. No. 89 V. Tangal ..	Rs. 435
Do.	Vallangeri ..	S. No. 57 V. Tank ..	1,290
Do.	Perumpattunellore ..	S. No. 14 V. Tank ..	510
		Total ..	2,235

2. The financial and hydraulic details of the Irrigation works concerned are exhibited in the following statement :—

I.—Financial Details.

Name of Work.	Ayacut Area.	Assessment.	Average Revenue for 5 years.	Highest Revenue for 5 years.	During the previ- ous 4 years.	OUTLAY.			Average annual proportion of Charges to Revenue.
						PROPOSED ORDINARY AGRICUL- TURAL, IRRIGATION.			
						Original Works.	Repairs.		
	ACRES.	RS.	RS.	RS.	RS.	RS.	RS.	PER CENT. RS.	
Senkunrum Tangal	29	66	59	61	Nil	235	118	119.6	
Vallangeri Tank	113	316	328	371	70	..	230	18.2	
Perumpattunellore Tank	132	223	223	266	..	..	325	22.1	
Total ..	274	610	610	692	70	235	673	32.0	

II.—Hydraulic Details.

Name of Work.	Catchment Basin Area.	MAXIMUM SUPPLY.		LENGTH OF ESCAPE.		AVERAGE HEIGHT OF BUND.		Surplus discharged at M.T.L. per Sec.	Tanks above.
		Catchment per Second.	Channels per Second.	Total	Effective.	Above F.T.L.	Above M.T.L.		
		SQ. M.	C. FT.	FT.	FT.	FT.	FT.	C. FT.	NO.
Senkunrum Tangal ..	0.5	354	..	E 60	60	2.0	0.5	305.4	Not stated. 2
Vallangeri Tank ..	3.62	1,327	..	E 114	114	4.0	2.5	351.8	
Perumpattunellore Tank ..	3.25	1,234	..	K 24	21	3.6	1.6	216.0	
				W 139	139	4.25	2.25	1320.9	
				W 24	74	3.76	2.25	402.6	
				E 50	..	..	..	..	
				W 24	376	3.75	2.25	1234.4	
				E 352	..	..	..	..	

NOTE.—The proposed dimensions of escapes and heights of bund are printed in large type. The existing dimensions in small type. The following abbreviations are used :—C.—Calingulah with dam stones. W.—Weir with flush crest. E.—Escape at ground level. B.—Bund of tank. S.—Revenue Survey V.—Village.

3. The following is a summary of the work proposed to be carried out in each case:—

Senkunram Tangal.—The bund of this tank is low throughout, and in some places it is only 6 inches above M.W.L. The surplus is discharged by means of an opening in the bund. The tank has one earthenware sluice.

The estimates provide for raising and repairing the bund, protecting the front slope with a belt of kuskus up to M.W.L. and above that level with turf, for forming a grass planted escape, and constructing a masonry irrigation sluice in lieu of the existing earthenware one.

The estimate for repair of the bank with which is included the removal of part of it to lengthen the escape, is recommended for sanction less the amount allowed for turfing, which is not likely to be successful, reducing the amount of the estimate from Rupees 150 to Rupees 118.

For the sluice a type design is sent to the District Engineer, which will require but small modifications to suit it to the site under notice. The estimate for the sluice in the type design sent is, at the rates entered in the estimate from the District Engineer, Rupees 210. Adding Rupees 25 for the probable modifications Rupees 235 are recommended for sanction.

Vallangeri Tank.—The Potheri Ninnaparai tank and tangal drain into this tank. The bund is low and weak. The tank has a calingulah of only 24 feet in length and a low level irrigation sluice.

The estimate provides for raising and repairing the bund, protecting the front slope with kuskus up to M.W.L. and turf above that level, constructing a high level irrigation sluice, and for converting the calingulah into a weir and extending it.

The estimate for repair of the bank is recommended for sanction, reduced to Rupees 230 by removal of the provisions for turfing and for planting kuskus between F.T.L. and M.W.L.

The propriety of constructing the high level sluice in this petty tank is doubted. It is observed, from the report, that the new sluice is required to irrigate high level land and to supersede a cut, whereas on the plan of the sluice the whole area is shown as to be supplied from it. High level sluices are generally a waste of money, and probably all that is wanted is an adaptation of the old low level sluice to the requirements of the cultivation under the tank. The estimate for the sluice is therefore not recommended for sanction.

The sum (Rupees 680) proposed for expenditure on the surplusing arrangements of this small tank is high, and is not recommended for sanction. The District Engineer will report whether an efficient escape at much less cost cannot be provided by merely levelling* a sufficient length of ground to F.T.L. and, if necessary, planting it with kuskus grass.

* See Circular No. 48.

Perumpattunellore Tank.—This tank is situated in the catchment basin of the Nandivaram tank. The inner slope of the bund is much eroded.

The estimates provide for repairing the bund, protecting its front slope with kuskus up to M.W.L. and turf above that level, enlarging the existing opening and converting

it into a grass planted escape, repairing the irrigation sluice and constructing one at a higher level.

The estimate for repair of the bank, in which is included the removal of part of it to form the escape, is recommended for sanction, reduced to Rupees 325 by the removal of the provisions for turfing above M.W.L. and for planting kuskus grass between that level and F.T.L., which is high enough for such planting to be carried to.

The estimate for the sluice is not recommended for sanction for the same reasons as those given in remarks on last tank (Vallangeri).

The following statement shows the proposed distribution of the outlay recommended for sanction, to the debit of the several heads of account involved:—

Name of Tank.	Items of Estimate.	Fund, Ordinary Agricultural, Irrigation.		Total for each Tank, &c.
		Original Works.	Repairs.	
		RS.	RS.	RS.
Senkunram Tank	Raising and repairing the bund and forming an escape planted with kuskus	235	118	353
Vallangeri Tank	Constructing an irrigation sluice	230	..	230
Perumpattunellore Tank	Raising and repairing the bund	..	325	325
	Repairing the bund and irrigation sluice and forming an escape planted with kuskus	..	..	..

(Signed) G. T. WALCH,
Ag. Dy. Chief Engr. for Irrigation,
for Chief Engineer for Irrigation.
To the Secretary to Government, Public Works Department.

No. 229.

ORDER THEREON, 9th April 1877, No. 1,219.

IRRIGATION, No. 11-A.
Account.

No. 161-W, dated 26th March 1877.

THE following estimates for Irrigation Works in the No. 3 or Chingleput Range, Chingleput District, forwarded by the Chief Engineer for Irrigation with his memorandum marginally noted, are sanctioned:—

Name of Work.	Item of Estimate.	Fund, Ordinary Agricultural, Irrigation.	Amount.	Irrigation Registry No.
			RS.	
Senkunram Tank	Repairing bund and forming an escape	Repairs	118	1
	Irrigation sluice	Original Works	235	2
	Repairing bund	Repairs	230	3
Vallangeri Tank	Repairing bund and sluice	Repairs	325	4
Perumpattunellore Tank	forming an escape	Repairs	..	..

Proceedings of the Madras Government, Public Works Department, —
9th April 1877. No. 1,219.

2. These sanctions are registered as shown above.

(True Extract.)

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

M. I. Form No. 1.

OFFICE OF CHIEF ENGINEER FOR IRRIGATION,

Fort. St. George. 26 March 1877.

N^o 161. W

Note by the Chief Engineer for Irrigation.

No. 3982.

Dated 16 Feb 1877.

Encl^s 2.

The following Estimates from the N^o 3 Archduke Range are forwarded

by the Superintending Engineer Shingaput with his letter

marginally noted:—

Taluq. Village. Work. Rs. Amount.

Shingaput. Senkumram. N^o 89. V. Tank. 435

— do — Vallanjori. N^o 57. V. Tank. 1290

— do — Perumpattumellore. N^o 16. V. Tank. 570.

Total Rupees 2235

2. The Financial and Hydraulic details of the Irrigation works concerned are exhibited in the following statement:—

I.—Financial Details.

Name of Work.	Ayaat Area.	Assessment.	Average Revenue for 5 years.	Highest Revenue for 5 years.	During the previous 4 years.	OUTLAY.			Average annual proportion of Charges to Revenue.
						Original	Proposed	Revised	
	Acres.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Senkumram Tank	29	66	59	61	Nil	235	718	119.6	
Vallanjori Tank	113	316	328	371	70	230	230	18.2	
Perumpattumellore Tank	132	228	223	260	-	325	325	29.1	
Total	274	610	610	692	70	235	673	32.0	

II.—Hydraulic Details.

Name of Work.	Catchment Basin Area.	Maximum Supply.		Length of Escape.		Average Height of Bund.		Surplus discharged at M. T. L. per Sec.	Tanks above.
		Catchment per Second.	Channels per Second.	Total.	Effective.	Above F. T. L.	Above M. T. L.		
Sq. M.	C. ft.	C. ft.	Ft.	Ft.	Ft.	Ft.	C. ft.	No.	
Senkurram Jangal 15554			E. 60	60	2.0	0.5	315.4		Not stated
Vallanjeri Jangal 362227			K. 24	24	3.5	1.5	216.0		2
Perrampattinmellor 350224			W. 2.5 E. 50	74	3.75	3.35	412.6		9

Note.—The proposed dimensions of escapes and heights of bund are entered in red. The existing dimensions in black. The following abbreviations are used:—K.—Kalingulah with dam stones. W.—Weir with flush crest. E.—Escape at ground level. B.—Bund of tank. R.—Revenue Survey. V.—Village.

3. The following is a summary of the work proposed to be carried out in each case—

Senkurram Jangal.

The bund of this tank is low throughout and in some places it is only 6 inches above M.W.L. The surplus is discharged by means of an opening in the bund. The tank had one Earthenware sluice.

The Estimates provide for raising and repairing the bund, protecting the front slope with a belt of Kuskus up to M.W.L. and above that level with

Note for Printer.—Red entries in this note are thus printed in *italic* and black entries in *plain* type.

turf, for forming a grass planted Escape and constructing a masonry irrigation sluice in line of the existing Earthenware one.

The Estimate for repairs of the bund with which is included the removal of part of it to lengthen the Escape, is recommended for sanction less the amount allowed for turfs, which is not likely to be successful, requiring the amount of the Estimate from Rs. 150 to Rs. 118.

For the sluice a type design is sent to the District Engineer which will require but small modifications to suit it to the site under notice. The Estimate for the sluice in the type design sent is at the rates entered in the Estimate from the District Engineer Rs. 210—adding Rs. 25 for the probable modifications Rs. 235, are recommended for sanction.

Vallanjeri Tank.

The Potheri Ninnaparai tank and Jangal drain into this tank. The pond is low and

and weak. The tank has a kalingulah of only 20 feet in length and a low level irrigation sluice.

The estimate provides for raising and repairing the bund, protecting the front slope with kushies up to M.W.L. and turf above that level, constructing a high level irrigation sluice, and for converting the kalingulah into a weir and extending it.

The estimate for repair of the tank is recommended for sanction reduced to Rs 230 by removal of the provisions for turbing and for planting kushies between F.T.L. & M.W.L.

The propriety of constructing the high level sluice on this petty tank is doubted. It is observed from the Report that the new sluice is required to irrigate high level land and to supersede a cut whereas on the plan of the sluice the whole area is shown as to be supplied from it. High level sluices are generally a waste of money and probably all that is wanted is an adaptation of the old low level sluice to the requirements of the cultivation under the tank. The

See circular
Nº 48.

Estimate for the sluice is therefore not recommended for sanction. The sum (Rs 680) proposed for expenditure in the surplusage arrangements of this small tank is high and is not recommended for sanction. The District Engineer will report whether an efficient escape at much less cost cannot be provided by merely levelling a sufficient length of ground to F.T.L. and if necessary planting it with kushies grass.

Perumpattunellore Tank

This tank is situated in the Catchment basin of the Navidivaram tank. The inner slope of the bund is much eroded.

The estimates provide for repairing the bund, protecting its front slope with kushies up to M.W.L. and turf above that level, enlarging the existing opening and converting it into a grass planted escape, repairing the

the irrigation sluice and constructing one at a higher level.

The Estimate for repair of the bank, in which is included the removal of part of it to form the escape is recommended for sanction reduced to Rs. 325 by the removal of the provisions for turping above H.W.L. and for planting kuskus grass between that level and F.T.L. which is high enough for such planting to be carried to.

The Estimate for the sluice is not recommended for sanction for the same reasons as those given in remarks on last tank (Vallangeri).

C. I. 22. 801

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The following Statement shows the proposed distribution of the outlay recommended for sanction, to the debit of the several heads of account involved:—

Name of Tank.	Items of Estimate.	FUND, ordinary Agricultural Irrigation		Total for each Tank, &c.
		Original works	Repairs.	
Sankunram Tank.	Raising and repairing the bund and forming an escape planted with kuskus..... Constructing an iriga- tion sluice.....	235	118	353
Vallangeri Tank.	Raising and repairing the bund.....	230		230
Perumpattumallur Tank.	Repairing the bund and irrigation sluice and forming an escape planted with kuskus		325	325

Control.

Sd/- Chief Engineer for Irrigation
Sd/- Chief Engineer for Irrigation

The Secretary to Govt.
P. W. D.

Chief

Sub

1877

From
The Chief Engineer for Irrigation

100-2-2
100-2-2
100-2-2

Dated 26 March 1877
Chief Engr April 1877

No 161-W

Encl. 22

Tank Repair. - Chingleput District. - Not recommending in sanction, estimate for Rs. 2235 or certain.

409 April 77 Bk. 228

100-2-2-7-4-77

E. I. Form No. 3.

No 1219 29 April 77 5-10-10

The following Estimates for Irrigation works in the Chingleput Range, Chingleput District, forwarded by the Chief Engineer for Irrigation with his Memo.

No. 161. W
dated 26 March 1877.

marginally noted are sanctioned:—

Name of Work.	Item of Estimate.	Fund. ordinary & extraordinary	Amount	Irrigation Registry No.
Sankunram Tank	Repairing bund and forming an escape	Repairs	118	2. I
	Irrigation sluice. origl. works		235	
Vallangeri Tank	Repairing bund	Repairs	230	2. I
Perrampattu or Mellor Tank	Repairing bund and sluice and forming an escape	Repairs	325	4 I

These sanctions are registered as shown above.

Collector } Chingleput
Ch. Engr. }
S. B. D. }
Head of Dept. }

26-4-77

100-2-2-7-4-77

Copy

Gobt. of 1877 Madras.

PUBLIC WORKS.

To The S. B. Chingleput.

Dated

Issued

Recd.

Encl.

G. O. 9 April 1877, No. 1219

Nos. 228-229

Sanks. Chingleput Dt

The estimates for repairs
to certain —, sanctioned

Contd. in Page 2.