Public Works (1898) Department.

G.O., No. 814-5 I

DATED 6 July '98

[Despatch Abstract.]

Cauvery Delta: Estimates aggregating Rs 51800 for constructing certain regulators for the better distribution of water in the —, approved & a copy of the G.O. ordered to be forwarded to the Govt of India for sanction.

Cauvery Delta: Forwarding, for sanction, copy of G.O. approving certain estimates aggregating Rs 51800 for constructing certain regulators for the better distribution of water in the —.

[P. W. 26. 1,000—12-2-98.]

Indexed.

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	D

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

IRRIGATION.
ACCOUNT.

Government {1898} of Madras.
PUBLIC WORKS.

Recd. } 1898. *Enclosures*
Regd. } 1898. *Spare copies*

G.O., Nos. 514, 515 I., 6th July 1898.

JULY.

Cauvery Delta

Forwarding, for sanction, copy of Proceedings approving certain estimates aggregating Rs. 51,800 for constructing certain regulators for the better distribution of water in the —.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following papers :—

From the Superintending Engineer on special duty, Tanjore, to the Chief Engineer for Irrigation, dated 6th December 1897, No. 875.

I have the honour to submit for your sanction the undermentioned three estimates :—

	Estimate. RS.
(1) Puthaur-Velappaur regulators : Constructing—.	7,000
(2) Regulators across Keerthimanaur : Constructing—.	8,500
(3) Puthaur-Solasoodamanyar regulators : Constructing—. ...	10,700

From W. HUGHES, Esq., Chief Engineer for Irrigation, to the Superintending Engineer on special duty, dated 1st January 1898, No. 2 T.J.

The marginally-noted plans and estimates received with the Superintending Engineer's No. 875, dated 6th December 1897, are believed not to have been seen by Colonel Smart and are returned for his inspection and any alteration which may be required.

	I. Puthaur Solasoodamanyar Regulator.
1	Survey of Solasoodamanyar head.
1	Level section of Solasoodamanyar head.
1	Tracing of regulator at Solasoodamanyar bifurcation.
1	Tracing of regulator at Solasoodamanyar head (Puthaur right bank).
1	Estimate with two data sheets, report, abstract, &c., complete.
5	
	II. Puthaur-Velappaur Regulator.
1	Survey of Velappaur head.
1	Level sections of Velappaur head.
1	Tracing of regulator at Velappaur bifurcation.
1	Tracing of regulator at Velappaur head (Puthaur right bank).
1	Estimate with report, two data sheets, abstract, &c., complete.
5	
	III. Keerthimanaur head sluice.
1	Survey of Arasalar and Nattaur at bifurcation of Keerthimanaur.
2	Level sections of Keerthimanaur.
1	Tracing of Keerthimanaur regulator at bifurcation.
1	Tracing of regulator at Keerthimanaur head (Nattaur right bank.)
1	Estimate with report, two data sheets, abstract, &c., complete.
6	
16	... Total.

There is nothing to show on what principles the dimensions of the works have been fixed, and the undersigned is therefore not in a position to deal fully with the designs. The following points are, however, brought to Colonel Smart's notice :—

2. *Puthaur-Solasoodamanyar Regulator.*—*First*—It is supposed there is no intention to alter the proportions in which the rivers take flood water and for anything that appears on the plans this proportion is nearly as the widths, or about as 100 to 40. Is there any reason for making the Puthaur regulator more than 100 feet between abutments ?

Second—There is no platform in front of shutters. It would be better to lengthen the piers 2½ or 3 feet and provide a good platform, and the thickness of piers might be reduced to 3 feet or a little more.

Third—The sills are placed 1½ feet below the deep bed of the rivers. There does not appear to be any reason for this.

Fourth—The estimate provides for building sills in rubble. As it would cost not much more to use dressed stone, this should be done. The rate for bricks is entered about 50 per cent. more than it

was a few years ago and no explanation given. It is altogether re-actionary to build works of this class in ground-moulded bricks. Table-moulded bricks should be used at least for the superstructure.

Fifth—The size of the vents has been fixed at 7⅓ feet to allow of utilizing the Nattaur head shutters, but as the timber and straps of these shutters cannot have cost above Rs. 40 each when new, and are already half worn out, the regulators should evidently be designed without any reference to these shutters, and the width of 7⅓ feet adopted only if it is quite as suitable as any greater width. There is nothing to indicate whether 4 feet is a sufficient height for the shutters. The full supply levels of the two rivers should have been stated.

Sixth—The maximum flood level should be verified. It is very improbable that the river never rises above the padugais.

3. *Puthaur-Velappaur Regulator.*—If the cross-sections of the rivers are at all average ones, it would appear that the two regulators should be about the same length. The Superintending Engineer should consider whether two or three more vents should not be added for the Puthar. The level selected for the sills seems about right. The flood level seems low. It is undesirable to block the flood water-way to any great extent, and if the regulators are made of length between abutments equal to the general bed width of the river, the further contraction due to piers of not more than necessary thickness is about as much as should be allowed. The remarks in paragraph 2 (2nd, 4th, 5th) apply to this work also.

The plan showing earth connexions seems impossible to execute as it would involve re-alignment of the road and river bank, both apparently quite needless.

4. *Keerthimanaur head sluice.*—The advisability of building in connexion with an old work like the scouring sluice is questionable. The questions referred to in paragraph 2 (2nd, 4th, 5th) above should also be considered with reference to this work.

From Colonel A. W. SMART, R.E., Superintending Engineer on special duty, Tanjore, to the Chief Engineer for Irrigation, dated 28th April 1898, No. 446.

With reference to your No. 2 T.J., dated 1st January 1898, I have the honour to submit plans, estimates, &c., for the following works :—

Puthaur-Solasoodamanyar.
Puthaur-Velappaur.
Keerthimanaur regulator and scouring sluice,

redrawn generally on the lines suggested in your memorandum.

Your 2 (1). There is no intention to alter the proportions in which the rivers take flood water, but the present Solasoodamanyar is somewhat larger than it should be; it is a high level stream, whilst the Puthaur is low level, and must therefore take the greater proportion of the flood discharge. The water-way now allowed is 30 feet for the Solasoodamanyar and 90 feet for the Puthaur.

Your 2 (2). Provided.

Your 2 (3). Floor level raised to 20·50 from 20·00. The deep bed is 20·96.

Your 2 (4). Cutstone allowed for floors. Table-moulded bricks allowed for superstructure.

Your 2 (5). Vents are now all made 10 feet wide with shutters 4½ feet. The full supplies have been noted on the plans; the depth of these small rivers for full supply is about 3 to 3½ feet. A shutter 4½ feet high is therefore sufficient for regulation.

Your 2 (6). The M.F.L. is shown on the cross sections; the level previously taken by you as the M.F.L. was the water level on a particular date.

Your 3. The Puthaur is a high level streamhere, and the greater bulk of the flood must go down Velappaur. The width of water-way allowed is five vents of 10 feet for Velappaur and three of 10 feet for Puthaur, or a total of 80 feet. The bridge above has only 60 feet water-way; the allowance made at the regulators is therefore ample. The flood level is marked on the sections; the level taken by you to be the flood level was the level of a particular date.

The small bank allowed along the margin of the road appears to be unnecessary and is therefore now omitted.

Your para. 4. The design now submitted is for a completely new work—three vents of 10 feet for Keerthimanaur and two vents of 10 feet for scouring sluice.

This latter, in my opinion, is much wanted in order to reduce the amount of sand accumulation in the bed above and to reduce the amount passing down the Nattaur.

P.S.—The plans and estimates of Arasalar-Nattaur which are ready will be retained till a model has been made of proposed shutter, which is similar in design to that submitted for Kodamurti head works.

---

rintending

Enclosures.

Report to accompany the estimate for constructing Regulators across Putha

ending Engi-
ecember 1897,
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ation which may

Amount of estimate ... ...

These two rivers have at present no masonry works across them for regulation and they draw water disproportionately. It is therefore proposed to construct regulators and fit them with $4\frac{1}{2}$ feet shutters, the full supply depth of water for the rivers being from 3 to $3\frac{1}{2}$ feet. The acreages under Puthaur and Velappaur are 9,000 and 1,900 and the discharges required at 3 cubic yards per hour per acre are 205 and 432 cubic feet per second, respectively. Three vents of 10 feet each for Puthaur and five vents of 10 feet each for Velappaur are allowed, which will discharge the required full supply with a head of 2″ and 3″, respectively.

The regulators are designed to generally suit the normal widths of the rivers and they are capable of discharging as much flood water as the streams can safely carry.

Report to accompany the estimate for constructing regulators across Puthaur and Solasoodamanyar.

	RS.
Amount of estimate	17,300

These two rivers have at present no masonry works across them for regulation and they draw water disproportionately. It is therefore proposed to construct regulators and fit them with $4\frac{1}{2}$ feet shutters, the full supply depth of water for the rivers being from 3 to $3\frac{1}{2}$ feet. The acreages under Puthaur and Solasoodamanyar are 31,300 and 12,800, and the discharges required at 3 cubic yards per hour per acre are 711 and 291 cubic feet per second, respectively. Nine vents of 10 feet each for Puthaur and three vents of 10 feet each for Solasoodamanyar are allowed, which will discharge the required full supply with a head of two inches.

The regulators are designed to generally suit the normal widths of the rivers and they are capable of discharging as much flood water as the streams can safely carry.

Report to accompany the estimate for constructing a regulator and scouring sluice at the head of Keerthimanaur.

	RS.
Amount of estimate	12,300.

The Keerthimanaur is at present an off-take of Arasalar, while it formerly was a branch of Nattaur with an old dam and scouring sluice on the right bank of the latter, which though closed are now existing. The change of head to Arasalar was made on account of insufficient supply in Nattaur; but as the latter's supply is to be improved by inserting higher shutters in the Arasalar-Nattaur regulator, Keerthimanaur can be now better supplied from Nattaur; otherwise it would be necessary to construct another regulator across the Arasalar. It is therefore proposed to build a new regulator with scouring sluice at the original Keerthimanaur head, 50 feet above the old dam, as shown on the accompanying plans, &c. Keerthimanaur irrigates 12,200 acres; discharge required at 3 cubic yards per hour per acre is 277 cubic feet per second. The proposed regulator has 3 vents of 10 feet each which will discharge the 277 cubic feet per second with a head of 2 inches. The scouring sluice is allowed 2 vents of 10 feet each.

The estimate provides for excavating connecting channels in front and rear of the new regulator as also a tail channel from the scouring sluice to Arasalar, for which the necessary lands will be acquired. The banks in the immediate vicinity of the proposed masonry works will be raised to the required extent.

(Signed) A. W. SMART, Col., R.E.,
Supg. Engr. on special duty.

28th April 1898.

No. 176 I.

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bed width of

Note by the Chief Engineer for Irrigation.

thickness is ab
4th, 5th) apply erintending Engineer on special duty, Tanjore, submits estimates
42,460 for the following works for the better distribution of water
The plan sh delta:—
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4. *Keerthiman* cting a regulator and scouring sluice at the head of Keerthimanaur.
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graph 2 (2nd, 4th, 5 the estimates has been reduced in this office by Rs. 260 owing to errors found in the calculations in the detailed estimates. The estimates are recommended for sanction. The works are classed as "unremunerative" as they are not directly remunerative in themselves, but being necessary for the system can justly be charged to "Capital." The works, will probably be completed by the 31st March 1901.

(Signed) W. HUGHES,
Chief Engineer for Irrigation.

16th June 1898.

Order—No. 514 I., dated 6th July 1898.

The following estimates are approved:—

Cauvery Delta System.
Cauvery Section.
2. Main Canals and Branches.
3. Regulators.

	RS.	RS.
1. Puthaur regulator	5,160	
2. Velappaur do.	7,440	12,600
3. Puthaur regulator	12,030	
4. Solasoodamanyar regulator	5,270	17,300
5. Keerthimanaur regulator	7,940	
6. Do. scouring sluice	4,360	12,300
Total, I. Works		42,200
II. Establishment ...		9,522
III. Tools and plant ...		78
Total ...		51,800

Your 2 (6). The M.F.L. is shown on the cross sections; the level previously taken by you as the M.F.L. was the water level on a particular date.

Your 3. The Puthaur is a high level streamhere, and the greater bulk of the flood must go down Velappaur. The width of water-way allowed is five vents of 10 feet for Velappaur and three of 10 feet for Puthaur, or a total of 80 feet. The bridge above has only 60 feet water-way; the allowance made at the regulators is therefore ample. The flood level is marked on the sections; the level taken by you to be the flood level was the level of a particular date.

The small bank allowed along the margin of the road appears to be unnecessary and is therefore now omitted.

Your para. 4. The design now submitted is for a completely new work—three vents of 10 feet for Keerthimanaur and two vents of 10 feet for scouring sluice.

This latter, in my opinion, is much wanted in order to reduce the amount of sand accumulation in the bed above and to reduce the amount passing down the Nattaur.

P.S.—The plans and estimates of Arasalar-Nattaur which are ready will be retained till a model has been made of proposed shutter, which is similar in design to that submitted for Kodamurti head works.

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Enclosures.

Report to accompany the estimate for constructing Regulators across Putha ending Engi-
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Amount of estimate ... ... eturned for his
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These two rivers have at present no masonry works across them for regulation and they draw water disproportionately. It is therefore proposed to construct regulators and fit them with 4½ feet shutters, the full supply depth of water for the rivers being from 3 to 3½ feet. The acreages under Puthaur and Velappaur are 9,000 and 1,900 and the discharges required at 3 cubic yards per hour per acre are 205 and 432 cubic feet per second, respectively. Three vents of 10 feet each for Puthaur and five vents of 10 feet each for Velappaur are allowed, which will discharge the required full supply with a head of 2″ and 3″, respectively.

The regulators are designed to generally suit the normal widths of the rivers and they are capable of discharging as much flood water as the streams can safely carry.

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The regulators are designed to generally suit the normal widths of the rivers and they are capable of discharging as much flood water as the streams can safely carry.

Report to accompany the estimate for constructing a regulator and scouring sluice at the head of Keerthimanaur.

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The estimate provides for excavating connecting channels in front and rear of the new regulator as also a tail channel from the scouring sluice to Arasalar, for which the necessary lands will be acquired. The banks in the immediate vicinity of the proposed masonry works will be raised to the required extent.

(Signed) A. W. SMART, Col., R.E.,
Supg. Engr. on special duty.

28th April 1898.

No. 176 I.

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errors found in the calculations in the detailed estimates. The estimates are recommended for sanction. The works are classed as "unremunerative" as they are not directly remunerative in themselves, but being necessary for the system can justly be charged to "Capital." The works, will probably be completed by the 31st March 1901.

(Signed) W. HUGHES,
Chief Engineer for Irrigation.

16th June 1898.

Order—No. 514 I., dated 6th July 1898.

The following estimates are approved:—

Cauvery Delta System.
Cauvery Section.
2. Main Canals and Branches.
3. Regulators.

	RS.	RS.
1. Puthaur regulator	5,160	
2. Velappaur do.	7,440	12,600
	12,030	
3. Puthaur regulator		
4. Solasoodamanyar regulator	5,270	17,300
	7,940	
5. Keerthimanaur regulator	4,360	
6. Do. scouring sluice		12,300
Total, I. Works		42,200
II. Establishment ...		9,522
III. Tools and plant ...		78
Total ...		51,800

2. Ordered that a copy of these Proceedings, together with the estimates and plans for the works, be forwarded to the Government of India with a request that sanction to the estimates may be accorded at an early date under "49. Capital Expenditure not charged to Revenue," Cauvery Delta system.

[Here enter No. 515 I., dated 6th July 1898.]

(True Extract.)

(Signed) W. HUGHES,
Joint Secy. to Government,
Irrigation Branch.

To the Chief Engineer for Irrigation.
" Superintending Engineer, V Circle,
" " on special duty, Tanjore.
" Examiner, Public Works Accounts.

Endorsement—No. 515 I., dated 6th July 1898.

Forwarded.

(By order.)

(Signed) W. HUGHES,
Joint Secy. to Government,
Irrigation Branch.

Exd. W. D'Moss.

Public Works (1898) Department.

CURRENT No. 5250.

From the Chief-Engr for Irrgn

Order

No. 1761

Dated 16-6-98

Received }
Registered } 22-6-98

Enclosures ~~11~~ 29+ (11+ plans)

Spare copies

SUBJECT.

Constructing regulators across Puthaur Velappar, Puthaur Solasoodamaniyar and Keerathimanar scouring sluice. Estimates amounting to Rs 51800 for — Note recommending for sanction the —

BACK PAPERS.

No.	Date.

FURTHER PAPE

No.	Date

A/

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Estimates for certain works for the better distribution of water in the Cauvery delta

Under date the

Read the following

From Supg Engr, on special duty, Tanjore. No 875, d/ 6.12.97
To do. – 2 T.S, d/ 1.1.98
From do. – 446 d/ 28.4.98

Print with papers

No 176 Dt/16-6-98 – Note by the Chief Engr for Irrigation

13P

The Supg Engr, on special duty, Tanjore, submits estimates aggregating Rs 42,460 for the following works for the better distribution of water in the Cauvery delta:—

1. Constructing regulators across Puthaur-Vlappaur.
2. Constructing regulators across Puthaur-Salasoodamangor.
3. Constructing a regulator & scouring sluice at the head of Keerthimanaur.

Issue
WH
I

18.6.98

CH
20/6/98

The amount of the estimates has been reduced in this office by Rs 260 owing to errors found in the calculations in the detailed estimates. The estimates are recommended for sanction. The works are classed as "unremunerative" as they are not directly remunerative in themselves but being necessary for the system can justly be charged to "Capital". The works will probably be completed by the 31st March 1901.

Order thereon. N-514 / 26.7.98

The following estimates are approved:—

Cauvery Delta System.
Cauvery section
2. Main Canals & Branches:
3. Regulators.

	Rs
Putkaur regulator	5760
Velappaur do	7440
	12,600

	Rs	
3. Putkaur regulator	12030	
4. Salasoodamangar do.	5270	17,300
5. Keerthimanaur regulator	7,940	
6. Do. scouring sluice	4,360	12,300
Total. I. Works		42,200
II Establishment		9,522
III Tools & Plant		78
Total		51,800

14 P

A.S.H 17.6.98

2. Ordered that a copy of these Procs: together with the estimates & plans for the works be forwarded to the Govt of India with a request that sanction to the estimates may be accorded at an early date under "49. Capital Expenditure not charged to Rev:" Cauvery delta system.

No 515 / 26.7.98

Endorsement.

Forwarded.

To
The Chief Engr for I.
Supg Engr & Circle
Do on special duty,
Tanjore.

Ex. P.W.D.

13/6/98

J.H.H
16.6.98

15/6/98

12/7/98

8/7/98

ublic Works (1898) Department.

CURRENT No. 55. I. J

From Col. A.W. Smart R.E.
Supg Engr on Special
duty. Tanjore

rder

No. 446.

Dated 28th April 1898

Received 2d May 1898 -

Registered

Enclosures

Spare copies

SUBJECT.

Puthar Balasubramaniar
Puthar-Velappar, Keerthimanar
Regulator & Scouring
sluice — Forwards
for sanction plans &
Estimates aggregating
Rs 42,460 for —

E. I. Form No. 1 (a)—350—1-11-97.

BACK PAPERS.

No.	Date.

FURTHER PAPERS

No.	Date.

R. 446

4 P

Office of Superintending Engineer
Cauvery completion Estimates
Tanjore Dated 28th April 1898.

From

Colonel. A. W. Smart R.E
Superintending Engineer
on Special duty, Tanjore.

To

The Chief Engineer
for Irrigation, Madras.

Sir,

With reference to your Flag. E. No. 2 T.I. dated 1st January 1898, I have the honour to submit plans, estimates &c for the following works:—

Amt of Estes

Rs 17400 —Puthar — Solasudamaniar
12,760 —Puthar — Velappaur
12,300 Keerthimanar Regulator and Scouring Sluice.

redrawn generally on the lines suggested in your memo.

Your 2 O. There is no intention to alter the proportions in which the rivers take flood water but the present Solasudamaniar is some-what larger than it should be, it is a high level stream whilst the Puthar is low level and must therefore take the greater proportion of the flood discharge. The waterway now allowed is 30 feet for the Solasudamaniar and 90 feet for the Puthaur.

your 2. (2) Provided.

your 2. (3) Floor level raised to 20.50 from 20.00. The deep bed is 20.96.

Your 2.(4) Cutstone allowed for floors. Table moulded bricks allowed for Superstructure.

Your 2.(5). Vents are now all made 10 feet wide with Shutters 4½ feet. The full supplies have been noted on the plans; the depth of these small rivers for full supply is about 3 to 3½ feet. A Shutter 4½ ft high is therefore sufficient for regulation.

Your 2.(6). The M.F.L is shewn on the cross Sections; the level previously taken by you as the M.F.L was the water level on a particular date.

VP

Your 3. The Puthar is a high level stream here and the greater bulk of the flood must go down Velappaur. The ~~area~~ width of waterway allowed is five vents of ten feet, for Velappaur and three of ten feet for Puthaur or a total of 80 feet. The bridge above has only 60 feet waterway; the allowance made at the regulators is therefore ample. The flood level is marked on the Sections; the level taken by you to be the flood level was the level of a particular date.

The small bank allowed along the margin of the road appears to be unnecessary and is therefore now omitted.

Your para 4. The design now submitted is for a completely new work; three vents of 10 feet for Keerthimanar and two vents of 10 feet for Scouring Sluice. This latter in my opinion is much wanted in order to reduce the amount of Sand accumulation in the bed above and to reduce the amount passing down the Nattaur.

I have the honour to be
Sir
Your most obedient Servant
A. W. .... Col RE
Superintending Engineer
on Special duty

The plans & estimates of Arasalaar. [illegible] which are ready will be retained till a model has been made of proposed shutters, which is similar in charge to that submitted for Coolamount head works.

AWJ
30/4/98

CHIEF ENGINEER
FOR IRRIGATION.
2-MAY 1898
No. 55 I.J.

0122
5250/98

Public Works (1897) Department.

IRRIGATION BRANCH.

ISSUE No. 2 I.J.

To

The Supg Engineer
on Spl duty

(Reply to letter No. , dated)

Dated 1. 1. 98
Despatched 5-1-97 + 7
Enclosures* 16 (vide draft)

* Particulars of Enclosures.

SUBJECT

Construction of three Regulators in Tanjore — Returns plans and estimates connected with the — for inspection and any alteration which may be required and brings to notice certain points noted within in connection therewith

Indexed

E. I. Form No. 13—2,000—1-11-97.

BACK PAPERS.

No.	Date.
R1633TJ	6-12-97

Sent to Government with No.

dated I.,

Printed with G.O., No. 1897.

dated I.,

189 .

REMINDERS ISSUED.

No. 1, dated

" 2 " 189

" 3 "

" 4 "

" 5 "

KEEP-WITHS.

FURTHER PAP

No.	Da
R55-TJ	25-4

ARS
Please copy soon
MA 3/1/98.

Enclosures. 16

Puthen Solasudamanian Regulator

Survey of Solasudamanian head
Level Sections of — do —
Tracing of regulator at Solasudamanian bifurcation.
Do — regulator at Solasudamanian head (Putham R Bank)
Estimate with 2 data sheets, report abstract &c Complete

Puthen Vellappar Regulator.

Survey of Vellappar head
Level Sections of do —
Tracing of regulator at Vellappar bifurcation
— do — at Vellappar head Putham right bank
Estimate with report, 2 data sheets abstract &c Complete
5

II Keerthimanar head Sluice.

1 Survey of Arasalar + Nattar at bifurcation of Keerthimanar
2 Level Sections of — do —
1 Tracing of Keerthimanar regulator at bifurcation
1 — Do — regulator at Keerthimanar head Nattar right bank
1 Estimate with report, 2 data sheets abstract &c Complete
6

Total 16

MA
5-1-98.

No 2 T.J. d/7-1-98

The Special S.E.

The marginally noted plans and estimates received with the S.E.s No. ~~1633 T.J.~~ 875 d/6.12.97 ~~do not appear~~ are believed not to have been seen by Col. Smart and are returned for his inspection and any attention which may be required —

There is nothing to show on what principles the dimensions of the works have been fixed and the undersigned is therefore not in a position to deal fully with the designs. The following points are however brought to Col. Smart's notice.

2. Puthen Solasudamanian Regulator.

1° It is supposed there is no intention to alter the proportions in which the rivers take flood water and for anything that appears on the ~~[illegible]~~ plans the proportion is nearly as the widths or about as 100 to 40. Is there any reason for making the Puthen regulator more than 100 ft between abutments

2°. There is no platform in front of ~~shutters~~. It would be better to lengthen the piers 2½ or 3 ft and provide a good platform and the thickness of piers might be reduced to 3 ft or a little more –

3°. The sills are placed 1½ ft below the deep bed of the rivers. There does not appear to be any reason for this.

4°. The estimate provides for building sills in rubble – As it would cost not much more to use dressed stone this should be done – The rate for bricks is entered about 50% more than it was a few years ago and no explanation given – It is altogether reactionary to build works of this class in pound moulded bricks. Table moulded bricks should be used at least for the superstructure.

5°. The size of the vents has been ~~made~~ ~~[illegible]~~ fixed at 7⅓ ft to allow of utilizing the Nattam Head shutters but as the timber and sheeting of these shutters cannot have cost above Rs 40 each when new, and are already half worn out, the regulators should evidently be designed without any reference to ~~the use~~ of these shutters – ~~Whatever~~ and the width of 7⅓ ft adopted only if this is quite as suitable as any greater width – There is

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3 P

nothing to indicate whether 4 ft is ~~the~~ sufficient height ~~extra~~ for the shutters – ~~The levels of the two rivers~~ The full supply levels of the two rivers should have been stated.

6°. The maxm flood level should be verified. It is very improbable that the river never rises above the pudigai.

3 Pullum – Velappa Regulator

If the cross sections of the rivers are at all average ones it would appear that the two regulators should be about the same length – The Supd Engr should consider whether two or three more vents should not be added for the Pullum – The level selected for the sills seems about right. The flood level ~~up~~ seems low – It is undesirable to block the flood waterway to any great extent and if the regulators are made of length between abutments equal to the general bed width of the river ~~and without of the length occupied by piers~~ the further contraction due to piers of not more than necessary thickness is about as much as should be allowed.

The remarks in para 2 (2°, 4° 5) apply to this work also –

The plan showing earth [illegible] seems unpossible to 4 cents as it would involve realignment of the road and river bank both apparently quite needless

4. Keerthimanni Head Sluice

The advisability of building in connexion with an old work like the Sevviaj sluice is questionable - The question ~~discussed~~ referred to in para 2 (2°.4°.5° above should also be considered with reference to this work.

4/1/98 W.H.

R 163 Fol/97

Public Works (1897) Department.

CURRENT No. 163 S.J.

Order

E1

May these three est.s for regulators in Tanjore be sanctioned after check.

16/12/97

From The Superintending Engineer on special duty Tanjore

No. 875

Dated 6th Decr/97

Received 8 — Do —

Enclosures Three

Spare copies

SUBJECT.

Submits for sanction three estimates.

Note

The estimates have not been classed as "remunerative" or "unremunerative"

D.E.J.

J.h. 8/12

lce 8/12/97

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

~~G.O.~~	No.	Department.	Date.
I	2.	T.J.	1-1-98
K	58	R.J.	24-4-98

Report to accompany the Estimate for constructing Regulators across Puthar and Velappaur.

Amount of estimate Rs 12600 ~~12,760~~.

These two rivers have at present no masonry works across them for regulation and they draw water disproportionately. It is therefore proposed to construct regulators and fit them with 4½ feet Shutters, the full Supply depth of water for the rivers being from 3 to 3½ feet. The acreages under Puthar and Velappar are 9,000 and 1900 and the discharges required at 3 cubic yards per hour per acre are 205 and 432 c. ft per Second respectively. Three vents of 10 feet each for Puthar and 5 vents of 10 feet each for Velappaur are allowed which will discharge the required full supply with a head of 2" and 3" respectively.

The regulators are designed to generally suit the normal widths of the rivers and they are capable of discharging as much flood water as the streams can safely carry.

Col. R.E.
Superintending Engineer
on Special duty
28.4.98.

Ous.3
5250/98

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7 S.P

Report to accompany the estimate for constructing Regulators across Puthar and Solasudamaniar.

Amount of Estimate Rs ~~17,400~~ 17,300/.

These two rivers have at present no masonry works across them for regulation and they draw water disproportionately. It is therefore proposed to construct Regulators and fit them with 4½ feet shutters, the full supply depth of water for the rivers being from 3 to 3½ feet. The acreages under Puthar and Solasudamaniar are 31,300 and 12,800 and the discharges required at 3 cubic yards per hour per acre are 711 and 291 cubic feet per second, respectively. Nine vents of 10 feet each for Puthar and three vents of 10 feet each for Solasudamaniar are allowed which will discharge the required full supply with a head of 2 inches.

The Regulators are designed to generally suit the normal widths of the rivers and they are capable of discharging as much flood water as the streams can safely carry.

Col. R.E
Superintending Engineer
on Special Duty
28.4.98.

OWS.4
5250/58

Report to accompany the estimate for constructing a Regulator and Scouring Sluice at the head of Keerthimanaur.

Amount of Estimate Rs 12,300.

The Keerthimanar is at present an offtake of Arasalar while it formerly was a branch of Nattaur with an old dam and Scouring Sluice on the right bank of the latter, which though closed are now existing. The change of head to Arasalaur was made on account of insufficient supply in Nattaur, but as the latter's supply is to be improved by inserting higher shutters in the Arasalaur-Nattaur Regulator, Keerthimanar can be now better supplied from Nattaur, otherwise it would be necessary to construct another regulator across the Arasalaur.

It is therefore proposed to build a new regulator with Scouring Sluice at the original Keerthimanar head, 50 feet above the old Dam, as shown on the accompanying plans &c. Keerthimanar irrigates 12,200 acres; discharge required at 3 c. yds per hour per acre is 277 c. ft per second. The proposed regulator has 3 vents of 10 feet each which will discharge the 277 cubic feet per second with a head of 2 inches. The Scouring Sluice is allowed 2 vents of 10 feet each.

The estimate provides for excavating connecting channels in front and rear of the new regulator as also a tail channel from the Scouring Sluice to Arasalaur, for which the necessary lands will be acquired. The banks in the immediate vicinity of the proposed masonry works will be raised to the required extent.

Col. R.E
Superintending Engineer
on Special Duty
28.4.98.

O.E. 11
5250/58

1875

Office of the Superintending Engineer
Cauvery Completion Estimates
Tanjore dated 6th December 97.

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From
The Superintending Engineer
on special duty
Tanjore.

To.
The Chief Engineer
for Irrigation
Madras

clo 3S
Separately
Bookpost

Sir,

I have the honour to submit for your sanction the undermentioned three Estimates:

1. Puthar-Velappaur Regulator. Constructing Estimate Rs 7000.
2. Regulators across Keerthimanar Constg Rs 8500.
3. Puthaur-Solasadamaniar Regulator Constructing Estimate Rs 18,700

I have the honour to be
Sir,
Your most obedient Servt.

A Smith
Executive Engineer
for Supt. Engineer
on spl duty
6/12

CHIEF ENGINEER
FOR IRRIGATION.
8-DEC 1897
No. 163 I.J.

) Department.

15P