Public Works (1896) Department.

G.O., No. 1202W

DATED 6/4/96

[Despatch Abstract.]

Gauging of rivers & canals in the Kistna delta — The views of the Chief Engineer for Irrigation regarding the establishment required for the — accepted —

[P.W. 25. / 1,000—1-10-95.]

BACK PAPERS.

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

FURTHER PAPERS.

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

No. 1202- W d/ 6 April/96.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following

From the Chief Engineer for Irrigation, No. 13 W. d/23rd March 1896.

The Government accepts the views of the Chief Engineer for Irrigation which will be communicated to Lt. Col. Smart for information.

2. It is not intended to apply for the services of Mr. Chatterton for special duty in the P.W. Department and as it is impossible to place -- another Assistant Engineer at Lt. Col. Smart's disposal, he must make the best arrangements possible with his present establishment.

2/4/96

CHBA.
4.4.96.

DESPATCHED
6 APL 96

The Chief Engineer for Irrigation.
,, Suptg. Engineer on special duty.

(40—4,000—2-11-95.)

No 1202. W d/ 6 April/96.

W

For orders whether this draft should go to H.E., or whether it x may be marked "Fil". x 2

If it is to go to H.E. it seems necessary that the linked file should accompany it, to elucidate the matter.

C

2/4/96.

Not necessary to send to H.E.

2/4/96 P.T.O.

obtained from

G. J. has informed Lt. Col. Smart that there is no intention of asking for Mr Chatterton's services, & that one of the Asst. Supts under Col. Smart should do what is necessary, but the latter repeats his proposals & asks that they may be placed before Govt.

G. I. in submitting the papers, points out –

3 91 of 1083 W

that the proposal to employ
Mr Chatterton in the P.W.D.
would be equivalent to giving
pay to planning the works under
a Dir. Supt. of grade of 19
years experience. & that a
P.W.D. officer would have
to be deputed to take Mr
Chatterton's place in the
College. & I believe that
what is required in the
Kistna Delta can be done
by an Asst. Dir. Vz. with
a small special establt,
& that much of what Col.
Smart proposes in the
Tanjore, Tinnevelly & South
Arcot districts is unnecessary

For orders.

Ch
15/3/86.

~~Has the Collector asked~~
~~for the P.W.D. of [illegible]~~
~~discharge in Kistna~~
~~been unknown.~~

Col: Smart must be
informed that Mr Chatterton
cannot be spared and
that it is undesirable
to put any A.E. in his
place he must therefore
make the best arrangements
he can with his present establt:

L
20/3/86

From

Colonel Smart R.E.
Superintending Engineer
on Special duty
Tanjore

To

The Chief Engineer
for Irrigation
Madras.

No. 4.

Dated 12th }
Despd. 12 } February 96
Recd. }
Camp. Kumbakonam.

Sir,

When in Madras I heard that Mr. Chatterton was likely to be placed on special duty in the Kistna for the purpose of guaging discharges over Weirs and in Canals. I would suggest that if he is to be so deputed he should spend six months of his time in the next season at the Upper Anicut to guage the Cauvery and Coleroon rivers for different heights on the Cauvery dam. He might also be employed in guaging a few of the minor channels in the upper reaches and may if you think proper be also placed in charge of the experiments in silt clearances proposed. It would be necessary

to

to have a steam launch and perhaps one may be made available from the Peryar Works. The opportunity would also be a good one to thoroughly test the Pitots tubes which have been purchased by the India Office and should be received in India at an early date.

I have the honour to be
Sir
Your most Obedient Servt.

Supt.g Engineer
on Special duty
Irrign

CHIEF ENGINEER
FOR IRRIGATION
13 FEB. 96
No. 24 Sa

Pro C.4 / 3025/96

T. C. P. 50—23-11-95.

D. P. W.

FROM

A. W. Smart Lt. Col. RE
~~Asstt.~~ Superintendg Special Engineer,
Cauvery Completion Estimates.

To

The Chief Engineer
for Irrigation
Madras.

CAMP, Kumbakonam

Dated 12th }
Despatched } February 1896.
Received }

No.

ENCLOS.

Reference :—

Sir,

When in Madras I heard that Mr. Chatterton was likely to be placed on special duty in the Kistna for the purpose of guaging discharges over weirs and in canals. I would suggest that if he is to be so deputed he should spend six months of his time in the next season at the Upper-anicut to guage the Cauv and Coleroon rivers for different heights on the Cauvery dam. He migh

also

P. W. CURRENT No. ~~1528~~

also be employed in guaging a few of the minor channels in the upper reaches and may if you think proper be also placed in charge of the experiments in silt clearance proposed. It would be necessary to have a steam launch and perhaps one may be made available from the Periyar works.

The opportunity would also be a good one to thoroughly test the Pitots tubes which have been purchased by the India Office and should be received in India at an early date.

I have the honor to be
Sir,
Your most obedt. Servant.

A W Smart
Lt. Col. R.E.

Superintending Engineer
on Special duty

Recd: 14.2.96

Obs 123 / 307/56

R 14. SA/96

Will be filled in when crossed.
The draft memo is put up for approval.
J.P.
22/2/96

No 30 SA ^v^ d/ 24.2.96

Memo:

With reference to letter No A d/12.2.96 from the Supdg Engineer on Special duty Cauvery Delta Completion Estimates, the undersigned has the honor to state that it is not intended to place Mr. Chatterton on Special duty in the Kistna District for the purpose of guaging discharges over weirs and in Canals. The guaging of the Cauvery and Coleroon rivers, the experiments of silt clearances and testing the Pitots tubes, the arrival of which has already been intimated in this office memo No. 29 SA ^v^ d/ 24. Feby 1896, will therefore have to be attended to by the Establishment under the Supdg Engr on Special duty who is requested to report if one of the Asstt Engineers placed under him in Chief Engineer's memo No 555 C. d/31.1.96 cannot attend to the work required to be done.

Recd
24/2

22/2

To

The Supdg Engr on Special duty

Owc. 2
3020/56

No. 96

Office of Superintending Engineer
Cauvery Completion Estimates
Madras dated 4th March/96

From:

A. W. Smart Lt Col RE
Superintending Engineer
on Special duty.

To.

The Chief Engineer
for Irrigation
Madras.

Sir, With reference to your no. V/30.SA dated 24th Febry, I have the honor to state that, in my opinion, it would be a mistake to put any young assistant Engineer in the important work of gauging rivers and Channels, who has not had previous experience of the use of the instruments required. For instance, the electric current meter requires very skilful manipulation and it is not every one, even after practice, who can make proper use of it. One of the great difficulties is to know when and why an observation is vitiated. It may be taken that the first season's work of an officer inexperienced in these

matters

matters would be lost in learning how to use the instruments. I am, therefore of opinion that it would be wise economy to employ Mr Chatterton who has had experience and who is eager to take up the work. A young assistant Engineer might be sent with him in order to acquire the knowledge that can only come by practice.

The work to be done may be taken under three heads.

1) Guaging of river and channels in the Kistna with a view to ascertaining the duty of water and the extent to which the area irrigated may be safely extended.

My opinion o
this point h
already been fu
-rnished t
S.E. II.

2) Guaging of rivers and branch rivers in Tanjore, and ascertaining the loss by absorption and evaporation between the junction of the Bhavani river with the Cauvery river, and the Cauvery at the Vennar Head.

Quite unnecessary
if the Bhavani
Reservoir Sch
which solve all dif
further be con-
structed.

3) Guaging channels supplying tanks in Districts such as North Arcot and Tinnevelly.

Not been found
necessary as yet.

The utility of the first two is generally recognised

recognised and I need say nothing further on them. With regard to the third I would instance two cases in which information of the kind wanted would have probably led to the saving of money uselessly spent or its expenditure in some other way to effect what the works constructed were supposed to do but have not done.

In the North Arcot District the Channel on the South bank Palar anicut was extended at a cost of Rs 30000 or so, to feed certain distant tanks with river water. I was and am sceptical whether this work has been of any use, or at all events of any great appreciable use. The channel feeds shallow tanks which are filled when there is heavy rain from their catchments and it is doubtful whether the river could give any supply at times when the tanks are already thus filled. At times the channel might be running water into the tanks when they were already full. Of course, such a channel could be of very little use.

Again under the Streevaiguntam anicut system we have a somewhat very similar case to deal with. The channels run

full

full when the shallow tanks are already more or less full from local drainage, and of course the channel water then simply runs to waste. Here probably if we had had the information which I would seek, instead of anicut and channels a reservoir would have been made higher up the river to supplement the supply of the tanks when running low. I am of opinion that many lakhs of rupees would have been saved or expended more usefully, if full information as to rainfall statistics of Districts and their irrigation capabilities had been available. I would therefore request you to reconsider the question of Mr. Chatterton's deputation on Special duty in connection with guaging of rivers and channels and that you will place this letter before Government with your favorable recommendation, for their orders.

I have the honor to be
Sir,
Your most obed^t. Servant

Smart
Lt Col. RE

Superintending Engineer
on Special duty

From Lt Col Smart R.E.
Superintending Engr
On Special duty
Vizag.

To the Chief Engineer
Irrigation
Madras.

Dated 3 March 90

Requests him to reconsider
the question of deputing
Mr. Chatterton for —— and
to place this letter before
Government for orders
with his recommendation.

P.W. 25.
1,000—1-19-86.

CHIEF ENGINEER
FOR IRRIGATION.
7 - MAR. 96
No.

From

A. W. Smart. Lt. Col. R.E.
Superintending Engineer
on Special duty
Tanjore

To

The Chief Engineer
for Irrigation
Madras

Dated 4th }
Despd }
Recd } March/96

PWE.1
3020/96
Gauging of rivers and
channels

Requesting to reconsider
the question of deputing
Mr. Chatterton for — and
to place this letter before
Government for favour-
-able consideration.

Letter No:A dated ~~17~~ 12th February 1896, from Lt-Coll:Smart R.E.
Superintending Engineer, on special duty, Cauvery Completion
Estimates.
Memo to do-----------------------------------No:30.S.A.d/24th Feby/96
Letter from do---------------------------------No:96 dated 4th March/96

No. 13 W.

Submitted to Government.

2 It is not intended to employ a young Assistant Engineer without experience on the special duty in the Kistna District for the purpose of guaging discharges over weirs & in canals for ascertaining the irrigating duty of determining the quantity and quality of silt carried down the river and of estimating the river discharge. In his letter No:2299.K.S, dated 5th February 1896, the Suptg Engineer, 2nd Circle, suggested the employment for 3 years on this duty of Mr A. Chatterton Professor of Engineering in the College of Engineering, Madras, with the salary and allowances of a first grade Ex:Engineer so the expense will be the same as that of employing an Ex: Engineer of 19 years experience. It is believed that Mr: Chatterton's experience was gained during the comparatively short time that he was employed on the executive staff of the P.W.D. On the last occasion when Mr Chatterton was employed on the Executive staff, it was necessary to find an officer to take his place in the College and it is thought that if an officer capable of taking his place could be found, he should be able to do the practical work required on this special duty. It is doubtful whether the arrangement proposed by Lt-Coll Smart R.E. to put a young Assistant Engineer under Mr Chatterton will answer apart from the question of expense.

py forwarded
the Chief
ineer - General,
ads & Buildings
anch with
office No 23. Ew.
24 - 2 - 96
with C No 3072

3 For guaging of the river and the channels in the Kistna delta with a view to ascertaining the duty of water & the extent to which the area irrigated may be safely extended it

it is considered that the establishment of 4 Gumastahs and 6 Watchmen to be placed under the orders of an Assistant Engineer for six months proposed by the Suptg Engineer, 2nd Circle in his letter No:2019.K.S dated 17th December 1895 and recommended in this office endorsement No:2.$^{+}$E.W.dated 6th January 1896 forwarded to the Chief Engineer General Roads and Buildings Branch should suffice to do all that is required. AS stated in this office Memo No:30.K.S.dated 24th February 1896 a copy of which was forwarded to the Chief Engineer, General Roads and Buildings Branch with this office No:23.E.W. of 24th February 1896, it is unnecessary to work over the whole face of the delta, the conditions of its various sections being very similar, that is, heavy alluvium at the head mixed with sand as it approaches the coast, and experiments carried out on the Bank Canal in the Western Section for the one and the Masulipatam canal for the other, will give data which it is very probable, will be found applicable to the Delta as a whole.

+ with C.W.
3072

4 Guaging of the rivers and branch rivers in the Tanjore District and ascertaining the loss by absorption and evaporation between the Junction of the Bhawani river with the Cauvery river and the Cauvery at the Vennar head are, it is considered, quite unnecessary if the Bhavani reservoir which will solve all difficulties, be constructed.

5 It has not been found necessary as yet to guage the channels supplying tanks in districts such as North Arcot & Tinnevelly. The project for making a reservoir above Papanasum in the hills of the Tinnevelly District was enquired into and abandoned some years ago. Should a further investigation of the project be now desired it does not seem necessary to go outside the Department to officer it.

Col R.E.

Madras, 23rd March/96. Chief Engineer for Irrigation.

To,
The Joint Secretary to Govt:
General Roads & Buildings Branch.

P.W. 25.
1,000—1-10-96.

P.W. CURRENT No. 3070

1896

To

The Joint Secretary to Govt.
Genl: Roads & Buildings Br.

Encls 4

Recd: 26.3.96

No 130

Dated 23rd March/96

Despatched 25-3-96

Subject

Guaging of rivers and channels of Kistna Delta- Rate suggesting with remarks that the establishment noted within may be placed under the orders of the Assistant Engineer for 6 months for and stating that the guaging of rivers and branch rivers in the Tanjore District is unnecessary if the Bhawani Project be constructed.

M.E.I.
Original and file herewith - D.P.
9-4-96-

Seen 9/4

9-4-96

P.W. 23.
1,000—1-10-95.