

Public Works (1896) Department

G.O., No. 1024.

DATED 2^d Dec 1896

[Despatch Abstract.]

Supply Channel: Estimate of Rs. 3,890 for
improvements to the head of the — from
Penner river to Hindupur tank, Bellary
Division, sanctioned.

[illegible][illegible]

Government [1896] of Madras.
PUBLIC WORKS.

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DECEMBER.

Estimate of Rs. 3,890 for improvements to the head of the — from Pennér river to Hindupur tank, Bellary division, sanctioned.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following papers :—

From W. B. DEWINTON, Esq., Superintending Engineer, III Circle, to the Chief Engineer for Irrigation, dated Bellary, 8th September 1896, No. 1699 I.

With reference to your No. III/14 B.L., dated 27th November 1888, I have the honour to forward herewith, for sanction, plans and estimates for improvements to the head of the supply channel from Pennér river to Hindupur tank in Anantapur district, amounting to Rs. 3,890.

2. The original proposal was to provide a head sluice to the channel, but when I inspected the work in March last I decided against this course for the following reasons :—

(a) The Pennér floods are very rare, and the Hindupur tank and the two lower tanks which receive its surplus require every drop of water that they can get. They are dry now, and were so last year.

(b) The surplusing power of Hindupur tank is ample to dispose of all drainage entering it, both from the Pennér and from its free catchment.

Under these circumstances a head sluice, in my opinion, would do more harm than good.

3. The head of the channel, however, requires protection from floods, because, as will be seen from the survey, the river is making a dead set against its right bank immediately above it. The bank here is very low and all floods of any height overtop it and spread over land cultivated with valuable garden crops, eroding a portion of it on each occasion, and destroying crops. If this set is not stopped the river will make a new course for itself in this direction in time.

I have therefore given instructions for an estimate to be prepared for a rivetted flood bank, on the line A B on survey, to be continued down the right bank of the channel until high ground is reached at C. This bank will, I hope, prevent further erosion and train the river directly into the channel.

4. The estimate provides also for closing breaches in the channel, and for silt clearance and straightening.

5. The channel sends water to three important tanks, which have, as a rule, obtained a very precarious supply, and the improvements now provided for will, I hope, ensure their getting a good supply whenever the Pennér is in flood, and for this reason, I strongly recommend them for sanction.

ENCLOSURE.

REPORT to accompany estimate for providing a right flood bank to the Hindupur tank supply channel.

Estimate	...	...	...	...	...	...	...	...	Rs.
									3,890

Hindupur large tank drainage particulars.—The Hindupur large tank, No. 44 in the major work list, has a free catchment area of 134 square miles. It is also fed by a supply channel which takes off from the Pennér river.

The discharge from basin is 549 cubic feet per second, and the maximum flood discharge of supply channel 748. Therefore the total maximum discharge into the tank is 1,297 cubic feet (*vide accompanying hydraulic details*).

Surplus arrangements.—The tank has two escapes. The one at the right flank is a masonry body wall with a sloping rough stone apron, length 252 feet. The other is a natural escape, 136 feet long, situated in the left flank. These can efficiently discharge the surplus drainage of the tank with a depth of 1.08 feet on the crests (*vide hydraulic details*). The surplus discharge of the right escape goes to Hindupur small tank and from thence to Kottanvar tank. The left escape discharges into the river.

Supply channel.—The supply channel takes off from the Pennér river. The fall of the bed is 5.49 feet in 4,196 or .0013 in unity (*vide accompanying plan sheet No. 2*). The highest flood level taken at C.S. No. 1 is 116.42 or 5.50 above normal bed level. With an average bottom width of 18 feet and side slopes 1½ to 1 the channel can discharge 748 cubic feet per second (*vide hydraulic details*).

Just above the head the river is encroaching on the right bank, and in its highest flood (which is said to occur about four times a year in favourable rains) the water taps the bank between C.S. Nos 4 and 6 and damages the standing crops of the ryots of Kirkuri Baranapalli.

Proposals.—The accompanying estimate provides for a flood bank in the bend of the river, from C.S. No. 1 to point B, to serve as groin and divert the current of the river (direction of bank shown in gamboge line in accompanying plan sheet No. 1). The proposed bund will be 6 feet wide at top with front and rear slopes in the ratio of 1½ and 2 to 1, respectively. The top of the bund will be 4½ feet above M.F.L. and the front slope rivetted.

Before the bank can be thrown up the sand from the bed will be removed to hard soil level which is 2.81 feet below.

The estimate also provides for planting nanal grass in the space between the rear toe of the proposed bank and the edge of the river.

The right flood bank will be continued from point B. to C.S. No. 11. The top of the proposed bund will be 4½ feet wide and 4 feet above M.F.L.

The old supply channel will be handed to prevent the water running back to the river (*vide plan sheet No. 1 shown in gamboge line marked A D*).

The earth for the flood bank will have to be taken from the patta lands adjacent to the right bank. A written statement obtained from the ryots, that they have no objections to earth being taken from their patta fields for the work, is herewith attached.

(Signed) J. F. SOMERS-EVE,
Executive Engineer.

No. 210 I.

Note by the Chief Engineer for Irrigation.

A project known as the Hindupur project was investigated and sent in in 1869.

2. The project provided for the construction of an anicut across the Pennér in the Bellary district to supply eleven tanks and amounted to Rs. 1,77,550.

3. The Hindupur tank is one of these tanks, and in 1888, Colonel Smalley, Superintending Engineer, III Circle, asked what was likely to become of the project, relative to a proposal to construct a head sluice to the Hindupur channel and to extend the Hindupur tank weir, as there would be no need of these works if the large project were going to be accepted. The Chief Engineer for Irrigation, Mr. Welch, passed orders on this in his No. III/14 B.L., dated 27th November 1888, in which he says "the large project is not likely to be taken up," and says, relative to the proposed extension of the Hindupur tank weir, there is no doubt that the proper way of dealing with the present means of supplying the tank is to regulate the quantity of water to be passed down the channel and not the provision of extensive weirs in the tank. Definite orders to abandon the large project were given in memorandum No. 1-III, dated 28th March 1890.

No. 1024 I., 2ND DECEMBER 1896.

4. The Superintending Engineer, III Circle, now submits an estimate* for improving the channel to the Hindupur tank and gives his reasons for not providing for a head sluice. He now submits

* Rs. 3,890.

calculations to show that the Hindupur tank surplus escapes are ample to dispose of all drainage both from the Pennér and from its catchment. It is to be noted, however, that in his No. 1839, dated 21st November 1888, Colonel Smalley reported that the tank was "in great danger of breaching and was only saved by the timely exertions of the Collector and the Tahsildar." It is, however, stated also in this letter that the Tahsildar had increased the discharge down the channel by widening it by village labour.

5. The estimate of Rs. 3,890 is approved and may be sanctioned.

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

19th November 1896.

ORDER—No. 1024 I., dated 2nd December 1896.

The following estimate is sanctioned:—

Irrigation.
43. Minor Works and Navigation.
Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.
Bellary Division.
Original Works.
Improvements to the head of the supply channel from Pennér river to Hindupur tank,
No. 41 of list of works in the Anantapur district, appended to G.O., No. 407 I.,
dated 6th July 1887.

Estimate Rs.
... .. 3,890

2. This sanction is registered as No. 143 I. of 1896-97.

(True Extract.)

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

To the Chief Engineer for Irrigation.
" Superintending Engineer, III Circle, with 11 enclosures.
" Examiner, Public Works Accounts.

Ed. C. M. Thambawamy.

PUBLIC WORKS DEPARTMENT,

IRRIGATION BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the

Read the following

From Sup. Eng. III Circle, No. 1699 S, 4 8th Sept 1896

Note by the Chief Eng. for Irrigation.

A proposal known as the Hindupur Proposal was investigated & sent in in 1869.

2. The proposal provided for the construction of an aicut across the Pennér in the Bellary district to supply 11 tanks & amounted to Rs 177,550.

3. The Hindupur tank is one of these tanks & in 1888, Colonel Smalley, Sup. Eng. III Circle, asked what was likely to become of the proposal relative to a proposal to construct a head sluice to the Hindupur channel & to extend the Hindupur tank weir,

as there would be no need
of these works if the large
project were going to be
accepted. The Chief
Eng for Irrigation, Mr.
Walch, passed orders
on this in his No. III
of 27 Nov/88, in which
he says "the large
project is not likely
to be taken up" & says
relative to the proposed
extension of the Hindupur
tank weir, there is no
doubt that the proper
way of dealing with
the present means of
supplying the tank is
to regulate the quantity
of water to be passed
down the channel & not
the provision of extensive
weirs in the tank. Definite
orders to abandon the
large project were given
in Memo No. I. III, of 28th
March/90.

+ Rs 3890

4. The Supply ^{to} Chief
now submits an estimate
for improving the channel
to the Hindupur tank
& gives his reasons for
not providing for a
head sluice. He now
submits calculations to
show that the Hindupur
tank surplus escapes
are ample to dispose of
all drainage both from
the Penner & from its
catchment. It is to be
noted however that in
his No. 1839, of 21 Nov/88,
Colonel Smalley reported
that the tank was "in
great danger of breaching
& was only saved by the
timely exertions of the
Collector & the Thasildar.
It is however stated also
in this letter that the
Thasildar had increased
the discharge down the
channel by widening
it by village labour.

5. The estimate of Rs 3890
is approved

Sanctioned

Order Person

The following estimate is sanctioned.

Irrigation

43. Minor works, Muzga

Minor works for which

neither Capital nor Rev.

Accounts are kept, P.W.D.

Millary Division

Original works

Improvements to the head

of the supply channel

from Penuet river to

Hindupur tank, No. 44

of list of works in the

Anantapur District

appended to G.O. No. 4073

6 July 1897.

Estimate Rs 3890

This sanction is

registered as No. 143 J

of 1896-97.

W.H.

19/11

To
The Chief Eng for
Supplying the
of P.W.D.
Recd
17/12/97

Public Works (1896) Department.

CURRENT No.

Order

From

The Supt. Engineer
III Circle
Bellary

No. 1699 J

Dated 8th September 1896

Received 9-9-96

Enclosures 1/2

Spare copies

SUBJECT.

Hindupur Tank -

Forwarding for sanction
plans and estimates for
improvements to the - with
certain suggestions.

B.R.
9-9-96

No.	Department.	Date.
914 BL 927	11-88	
R 11	AN	21. 11. 88
R 7	DL	27. 5. 82

[illegible]

Enclosures.

- 1 Report
- 1 Letter to Urger
- 2 Calculation sheets -
- 1 Detailed Hydrographic
- 1 Table of ^{Latitude} ~~Latitude~~
- 1 Data sheet -
- 1 Detailed estimate
- 1 Abstract
- 1 Tracing
- 2 Plans

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No 7699 I
W. B. de Winton Esq
Supt. Engineer III Cir.
To
The Chief Engineer
for Irrigation.
U. S. A.

With reference to your No. ^{III} 1402 dated 27th November 1888, I have the honor to forward herewith for sanction plans and estimates for Improvements to the head of the supply channel from Perrow river to Hindupur Tank in Anantapur District amounting to Rs. 3890.

2. The original proposal was to provide a head sluice to the channel, but when I inspected the work in March last I decided against this course for the following reasons.

(a) The Penner floods are very rare, and the Hindipur tank and the 2 lower tanks which receive its surplus, require every drop of water that they can get. They are dry now, and were so last year.

(b) The surplusage power of Hindupur tank is ample to dispose of all drainage entering it both from the Pennar and from its catchment.

Under these ^{90° SP}
Hence to Kallanivartan

12/18/11

11/17/81

my opinion would do more harm than good. The head of the channel however, requires protection from floods, because, as will be seen from the survey, the river is making a dead set against its right bank immediately above it. The bank here is very low and all floods of any height overtop it and spread over land cultivated with valuable garden crops, eroding a portion of it on each occasion, and destroying crops. If this set is not stopped the river will make a new course for itself in this direction in time.

I have therefore given instructions for an estimate to be prepared for a revetted flood bank, on the line A.B. on survey to be continued down the right bank of the channel until high ground is reached at C. This bank will, I hope, prevent further erosion, and train the river directly into the channel.

The estimate provides also for closing breaches in the channel, and for sill clearance & straightening.

5. The channel sends water to 3 important tanks, which have as a rule obtained a very precarious supply, and the improvements now provided for will, I hope, ensure their getting a good supply whenever the Pennar is in flood, and for this reason, I strongly recommend them for sanction.

I have the honor to be,

Sir,

Your most obedient servant

W. H. Lintin

Engineer, III. Circle.

Report to accompany Estimate for providing a right flood bank to the Hindupur Tank Supply Channel.

Estimate Rs. 4930 ✓

Hindupur large tank drainage particulars -

The Hindupur Large tank. No. 44 in the Imperial list has a free catchment area of 1.34 sq. miles. It is also fed by a Supply Channel which takes off from the Pennar River.

The discharge from Basin is 549 Cft per second, and the maximum flood discharge of Supply Channel 748. Therefore the total maximum discharge into the tank is 1297 Cft (vide accompanying hydraulic details)

Surplus arrangements

The tank has two escapes. The one at the right flank is a masonry body wall with a sloping rough stone apron length 252 ft. The other is a Natural Escape 136 ft long, situated in the left flank. These can efficiently discharge the surplus drainage of the tank with a depth of 1.08 ft on the crests (vide hydraulic details). The surplus discharge of the right escape goes to Hindupur Small tank, & from thence to Kallanur Tai

1/17/11

The left escape discharges into the river.

Supply Channel

The supply Channel takes off from the Pennar river. The fall of the bed is 5.49 ft is 4196 or .0013 in units (under a corresponding plan sheet 2) The highest flood level taken @ C.S. No 1 is 116.42 or 5.50 above normal bed level. With an average bottom width of 18 ft and side slopes $1\frac{1}{2}$ to 1 the Channel can discharge 748 C.F.S. per second (under hydraulic details).

Just above the head the river is encroaching on the right bank, and in its highest flood (which is said to occur about 4 times a year in favorable rains) the water laps the bank between C.S. No 4 and 6 and damages the standing crops of the Ryots of Harkari Baranapalli.

The accompanying Estimate provides proposals for a flood bank in the bed of the river from C.S. No 1 to point B, to serve as groin and divert the current of the river (direction of bank shown in gauge line in accompanying plan sheet No 1) The proposed bank will be 1 ft wide at top with front and rear slopes in the ratio of $1\frac{1}{2}$ and 2 to 1

respectively. The top of the bank will be $4\frac{1}{2}$ ft above M.F.L. and the front slope rivetted.

Before the bank can be thrown up the sand from the bed will be removed to hard soil level which is 2.81 ft below.

The Estimate also provides for planting kharai grass in the space between the rear toe of the proposed bank and the edge of the river.

The right flood bank will be continued from point B to C.S. No 11. The top of the proposed bank will be $4\frac{1}{2}$ ft wide and 4 ft above M.F.L.

The old supply channel will be walled to prevent the water running back to the river (vide plan sheet No 1 shown in gauge line marked A.D.)

The Earth for the flood bank will have to be taken from the patta lands adjacent to the right bank. A written statement obtained from the Ryots that they have

BACK PAPERS.

G.O.	No.	Department.	Date.
S.O.	28824	P.W.	15-10-72
"	1460W	"	10-5-72
"	4079	"	6-7-81
"	1877-8W	"	26-7-86
"	1548	Revenue	15-7-78
"	1259	"	3-6-72
"	5865	P.W.	8-12-77
"	2172	Rev.	5-10-77

FURTHER PAPERS.

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