

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.

Government { 1896 } of Madras.
PUBLIC WORKS.

Spare copies

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 surplusage 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.

									RS.
Estimate	...	...	...	...	...	...	...	...	3,890

Hindupur large tank drainage particulars.—The Hindupur large tank, No. 44 in the major work list, has a free catchment area of 1.34 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 $1\frac{1}{2}$ 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 Kirkari 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 $1\frac{1}{2}$ and 2 to 1, respectively. The top of the bund will be $4\frac{1}{2}$ 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 $4\frac{1}{2}$ feet wide and 4 feet above M.F.L.

The old supply channel will be banded to prevent the water running back to the river (*vide* plan sheet No. 1 shown in gamboge line marked $\frac{A}{1}$ 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. Walch, 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 provid-

* Rs. 3,890.

* 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. 44 of list of works in the Anantapur district, appended to G.O., No. 407 I.,
dated 6th July 1887.

								RS.
Estimate	...	...	...	...	...	...	...	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.

Exd. C. M. Thumbuswamy.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the

READ the following

From Saffrey, III Crick, n. 1699 J, 4 8th Sept 196

Hope by the Chief Eng.
for Inigation

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

2. The project provided for the construction of an aicut across the Pennar 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, Supp Engr, III Crich, asked what was likely to become of the project, 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 Engr 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, ^{the} Engr, 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/86, 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 thereon

The following estimate is sanctioned:-

Irrigation

43. Minor works Navin.

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 Pennet river to

Hindupur tank, N. 44

of list of works in the

Anantapur District

appended to G.O. No. 407,

6 July 187.

Estimate Rs 3890

2. This sanction is

registered as No. 143

of 1896-97.

19/11/96

W.H. 19/11

783 2/12

To The Chief Eng for supply of water to Hindupur tank with 11 in. dia. pipes. 17/12/96

Public Works (1896) Department.

CURRENT No.

1 P

R-19-AN

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.

BR 9-9-96

- 1 Report
- 1 Safety Engineer
- 2 Calculation sheets
- 1 Detailed Hydraulic particulars
- 1 Schematic do
- 1 Data sheet
- 1 Detailed estimate
- 1 Abstract
- 1 Tracing
- 2 Plans

12

W. B. de Winton Esq:
Supt. Engineer, III Circle.
To
The Chief Engineer,
for Irrigation.
Meadow

With reference to your No. III
1432 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 Pennar 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 Hindupur 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 Cenner and from its catchment.

Under these [LPS] ^{96/10}
Thence to Kattanvar tau

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 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.

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

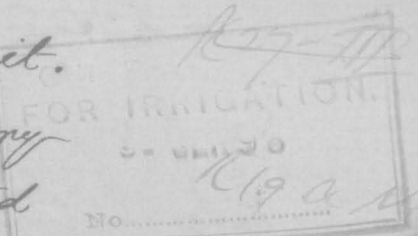
I have the honor to be,

Sir,

Your most obedient servant

W. H. L. L. L.

Engineer, III. Levels.



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

Estimate Rs. 4930

Kundupur large tank drainage particulars -

The Kundupur 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 crest (vide hydraulic details). The surplus discharge of the right escape goes to Kundupur Soma tank, & from thence to Kattanvar tank.

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 (vide accompanying 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 (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 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 Kerkari Baranapalli

The accompanying Estimate provides Proposals for a flood bank in the head 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 Gamboje line in accompanying plan Sheet No 1) The proposed bund 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 bund will be $4\frac{1}{2}$ ft above M.F.L. and the front slope rivetted. 480

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 Kanak 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 $4\frac{1}{2}$ ft wide and 4 ft above M.F.L.

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

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

BACK PAPERS.

FURTHER PAPERS. B