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MADRAS RECORD OFFICE.

Government of Madras.

Public works DEPARTMENT.

G.O. No. 724

Press
~~Mis.~~

165-166

Dated 8-3

1870.

Not to be folded or roughly handled

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153

*Proceedings of the Madras Government, Public Works Department,
8th March 1870.*

No. 165. Read the following letter from the Acting Superintending Engineer, 1st Division, to the Secretary to Government, Public Works Department, dated Dowlaishweram, 24th January 1870, No. 3,749:—

During a late tour in No. 6 Range of this district, I went over the Lingumpurroo Tank and the country and the Yalairoo river in its vicinity, and I now beg to submit the accompanying sketch map, on which I have marked a place where I think it would be quite feasible to construct a dam of moderate dimensions to store the flood-waters of the Yalairoo which are known to be of frequent occurrence during the monsoon season, and irrigate a large extent of land on either bank of the river including a large area under the Lingumpurroo Tank now thrown out of cultivation for want of water in that reservoir, and I am in hopes of being able to extend the canal on the right bank to the Bicavole drain and so connect it with the Samulcottah Canal as a line of navigation from the site of the dam to the Eastern Delta.

2. On the sketch map I have shown a section of the river at the proposed site for the work, and it will be seen this is extremely favourable; and, as far as I am aware, the slope of the river-bed is so moderate we shall be able to obtain a good waterspread with a dam only forty-two feet in height.

3. As regards the water-supply of the Yalairoo river, it is well known to be a perennial stream, never failing in the hottest seasons. From July to the end of November there is always about two feet or eighteen inches of water in the river, and during this season the river comes down in freshes once or twice in each month.

4. In preparing a design for a bridge over this stream where it crosses Trunk Road No. VI. about six miles below the site of the dam, I found the heavy flood discharge of this river was about 31,85,760 cubic yards per hour with a velocity of about $4\frac{3}{4}$ miles per hour. Its ordinary flood discharge was 8,87,900 cubic yards per hour with a velocity of $3\frac{1}{2}$ miles per hour. I believe the above calculations to be tolerably correct, as the flood-marks were registered at a spot where a great line of traffic crosses the river and where its banks are well defined.

5. Its catchment basin is about 350 square miles above the site of the dam, and consists entirely of steep hilly country. A heavy flood would be produced by a fall of $2\frac{1}{2}$ inches of rain, and an ordinary flood by a fall of half inch of rain running off this drainage area. If only one inch of rain a month during the monsoon season were to run off by the river, the supply would be thirty million cubic yards; and, as it takes about 1,000 cubic yards a month for the irrigation of an area of land, this supply alone would be enough for 30,000 acres of land without counting upon any of the heavier floods of the river which the work would enable us to store.

6. The rain fall of this district has not been so carefully registered, I find, as it might have been, but I believe the average is as nearly as possible as below:—

June...	4 inches.
July...	8 "
August...	8 "
September...	12 "
October...	4 "
Total...	36 "

*Proceedings of the Madras Government, Public Works Department,
8th March 1870.*

If only one-third of this can be stored here and distributed for irrigation, it would be sufficient for 70,000 acres of rice cultivation, and a good system of navigation inland from the delta might be maintained for six or eight months in the year.

7. I beg, therefore, to submit this project for the consideration and orders of Government, with a view to sanction being granted for its further investigation and a small outlay being incurred in making the necessary surveys and estimate, As the work if approved of will have to be provided for from the Extraordinary grant, and funds are available in this district from this source, I would solicit that Rupees 3,000 be placed at my disposal for this purpose. Mr. Hannan, the Assistant Engineer of the Range, is at present available for the duty of superintending the surveys, and will, I have no doubt, give the Government every satisfaction in this matter, and I will give him all the assistance I can. If, therefore, the project as at present outlined is approved of, I beg you will do me the favour to send me a telegram to that effect.

No. 166.

ORDER THEREON, 8th March 1870, No. 724.

IRRIGATION, No. 12.

THE Government are not prepared to sanction at present the employment of additional establishments in the Godavery District. When the delta estimates have been completed, the establishments thereupon employed will be available for work elsewhere, and a part of them can be sent to investigate the project for the formation of a reservoir on the Yalairoo. In the meantime arrangements should be made for gauging the discharge of that river and for obtaining such information as may be available or procurable regarding rain fall, etc.; and, as these particulars must be inquired into and ascertained before the project can be finally disposed of, the postponement of the surveys for a few months need not, the Government think, materially delay the submission of the project.

(True Extract.)

(Signed) J. MULLINS, Major, R.E.,

Acting Joint-Secretary to Government.

To the Superintending Engineer, 1st Division

Exd. A. S. Rodgers.

SUPERINTENDING ENGINEER'S OFFICE, 1ST DIVISION
DOWLAISHWARUM, 26th January 1870

No. 3749

From

Major J. F. Fischer R.E.
Superintending Engineer

1st Division

To

Colonel C. J. R.E.

Secretary to Government D. P. W.

Madras

SIR,

During a late tour in Godavari
of this District I went over the Singampuram
Tank and the country and the Yalairoo River
in its vicinity and I now beg to submit the
accompanying sketch map on which I have marked
a place where I think it would be quite feasible
to construct a Dam of moderate dimensions
to store the flood waters of the Yalairoo which
are known to be of frequent occurrence during
the monsoon season, and irrigate a large extent
of land on either bank of the River including
a large area under the Singampuram Tank
now thrown out of cultivation for want of water
in that reservoir, and I am in hopes of being
able to extend the Canal on the right bank to the
Bicavoli drain and so connect it with the
Samuleottah Canal as a line of irrigation
from the site of the Dam to the Eastern Delta.

W

2 On the Sketch Map, I have shown a section of the river at the proposed site for the work, and it will be seen, this is extremely favorable, and as far as I am aware the slope of the river bed is moderate so we shall be able to obtain a good water spread with a Dam only 42 feet in height.

3 As regards the water supply of the Yalainoo River it is well known to be a perennial stream, never failing in the hottest seasons; from July to the end of November there is always about ~~17~~ 18 inches of water in the River, and during this season, the River comes down in freshes once or twice in each month.

4 In preparing a design for a bridge over this stream where it crosses Trunk Road No 6 about 6 miles below the site of the dam, I found the heavy flood discharge of this River was about 3,185,760 Cubic Yards per hour with a velocity of about $4\frac{3}{4}$ miles per hour. Its ordinary flood discharge was 887,900 Cubic Yards per hour, with a velocity of $3\frac{1}{2}$ miles per hour. I believe the above calculations to be tolerably correct.

Correct as the flood marks were registered at a spot where a great line of traffic crosses the River and where its banks are well defined.

5 Its catchment basin is about 350 square miles above the site of the Dam and consists entirely of steep hilly country; a heavy flood would be produced by a fall of $2\frac{1}{2}$ inches of rain and an ordinary flood by a fall of $\frac{1}{2}$ inch of rain running off this drainage area. If only one inch of rain a month during the monsoon season were to run off by the River the supply would be 30 million Cubic Yards, and as it takes about 1000 Acres a month for the irrigation of an area of land, this supply alone would be enough for 30,000 acres of land without counting upon any of the heavier floods of the River which the work would enable us to store.

6 The rainfall of this District has not been so carefully registered I find, as it might have been, but I believe the average is as nearly as possible as below.

June	4 inches
July	8 inches
August	8 inches
September	12 inches
October	4 inches

36 Total

Jf

If only $\frac{1}{3}$ of this can be stored, and distributed
for irrigation, it would be sufficient for 70,000
acres of rice cultivation and a good system
of navigation inland from the Delta might
be maintained for 6 or 8 months in the year.

I beg therefore to submit this
project for the consideration and orders
of Government, with a view to sanction being
granted for its further investigation, and a
small outlay being incurred in making the
necessary surveys and estimate, as the work
if approved of will have to be provided for
from the extraordinary grant and funds
are available in this District from this source.
I would solicit that Rs. 3000 be placed at
my disposal for this purpose. Mr. Hannan
the Assistant Engineer of the Range is,
at present available for the duty of superin-
tending the surveys, and will, I have no doubt,
give the Government every satisfaction
in this matter, and I will give him all the
assistance I can. If therefore, the project as at
present outlined, is approved, I beg you will
do me the favor to send me a telegram to that
effect.

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

W. L. Tucker Major R.E.
Asst. Eng. 1st Division

If only 3 of this can be stored and distributed
in the interval to be sufficient for 10000

Mr. 1870 Dept
No. 3749
From (5) Mr. 377
The Ag. Secy. Engineer
1st Division

To The Secretary
to Government
Madras

Dated 24th } January 1870
Recd 31

* Plans
Submits for consideration
and orders of Government
a scheme for constructing
a Reservoir on the Galavara
River and requests sanction
for its further investigation.

No 165
No 726: 8-March/70
C. 21st Feb 1870 P. 28th Feb

No 726 Public Works Dept
Proceedings of the Madras Government
Under date the 8th March 1870

Read the following
From the Supy. Engr. 1st Div. (Here enter No 3749 of 21st Jan 1870)

The Government are
not prepared to sanction
at present the employment
of additional establishments
in the Godavery District.
When the Delta estimates
have been completed, the
establishments thereupon
employed will be available
for work elsewhere, and
a part of them can be
sent to investigate the
project for the formation
of a reservoir on the
Galavara. In the mean
time

N!
A. A.
W. H.

time arrangements should
be made for gauging the
discharge of that river, and
for obtaining such infor-
mation as may be avail-
able, or procurable, regard-
ing rainfall, &c, and, as
these particulars must
be ascertained and as-
certained before the project
can be finally disposed of,
the postponement of the
survey for a few months
need not, the Govt. think,
materially delay the dis-
position of the project.

July 12/70

To Mr. Secretary, 1st Div.
Recd 10/3/70.

Mr. Secretary
1st Div.

Cal. No. 377

Govt. of 1870: 1873.

PUBLIC WORKS.

The Superintending Engr.
St. Division

David

Doc.

G. O. S. March 1873, No. 726

Nos. 165-166

Malairor Reservoir Project
Passing orders on the
proposal for the construction
of a reservoir on the right
Malairor in the Godavery
District & the request
for an additional ex-
-penditure for the in-
-vestigation of the project.